FIG. 1A

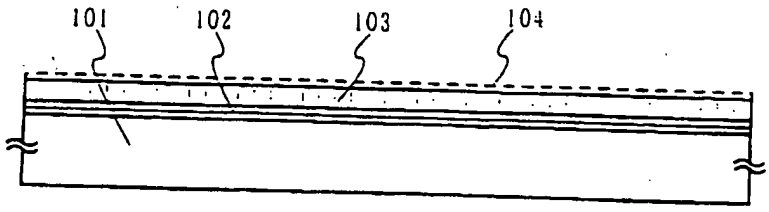


FIG. 1B

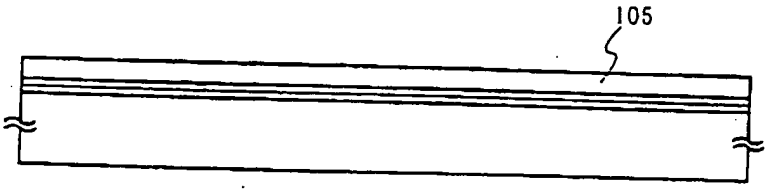


FIG. 1C

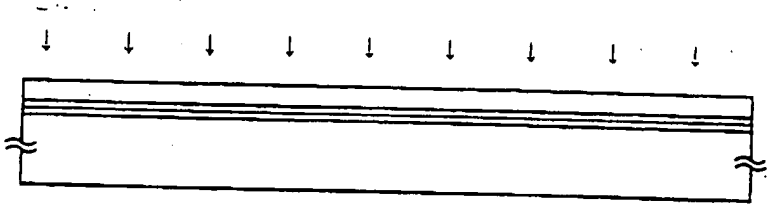


FIG. 1D

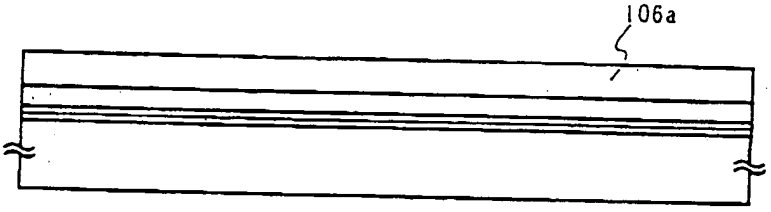


FIG. 2A

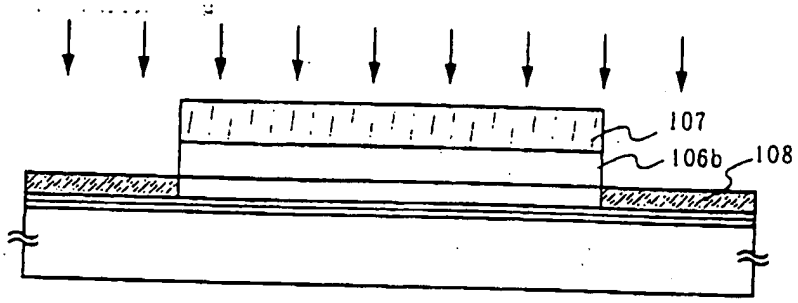


FIG. 2B

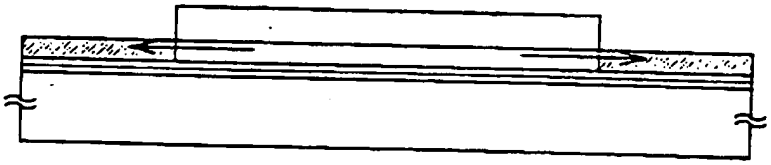


FIG. 2C

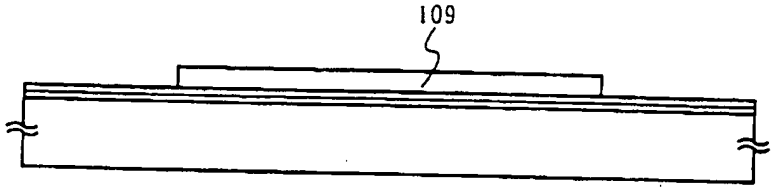


FIG. 2D

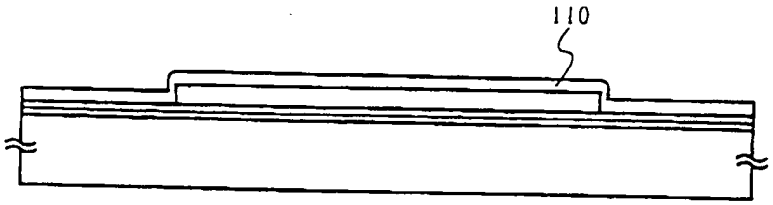


FIG. 3A

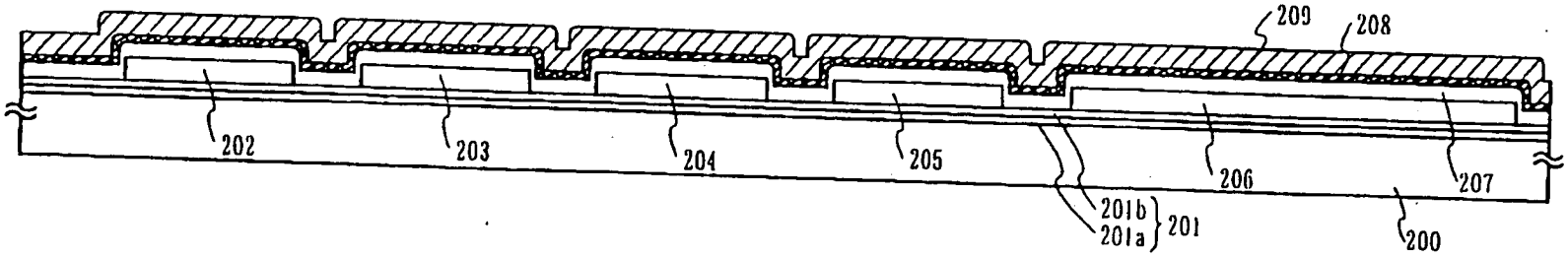


FIG. 3B

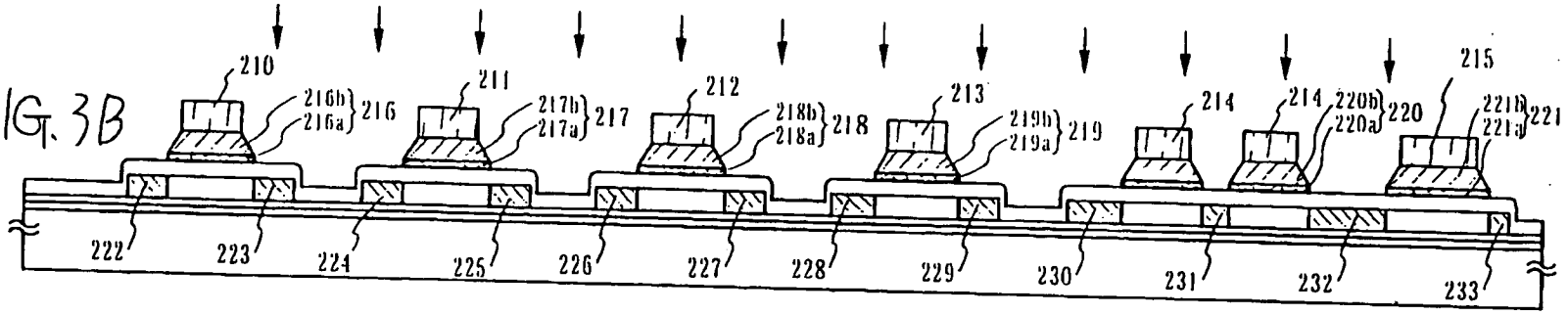


FIG. 3C

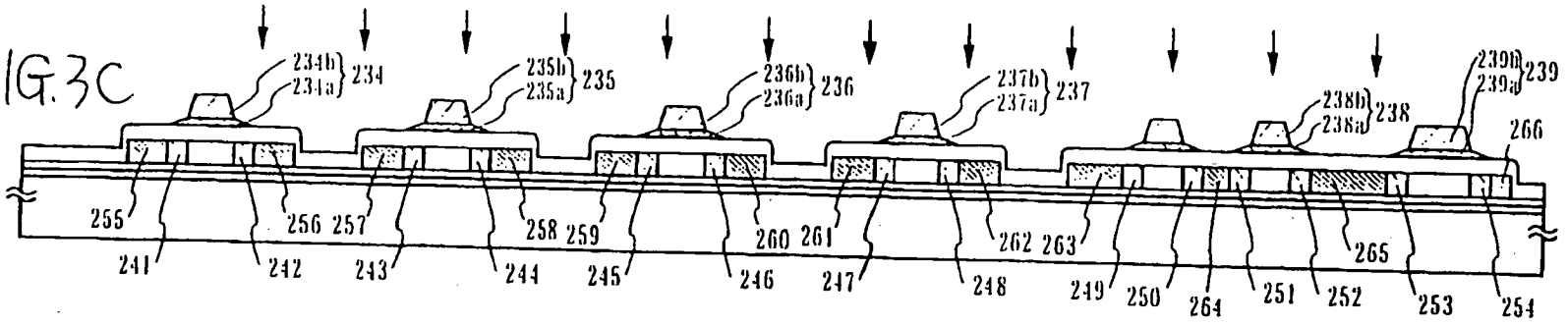


FIG. 4A

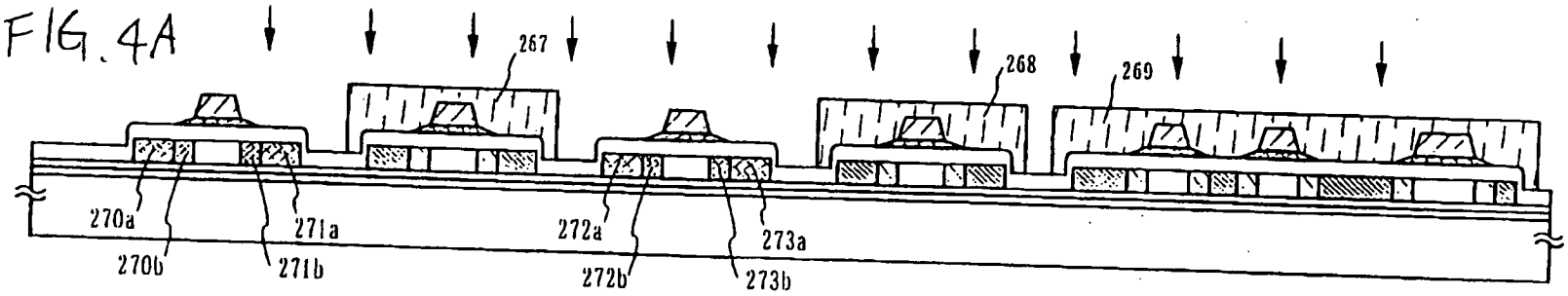


FIG. 4B

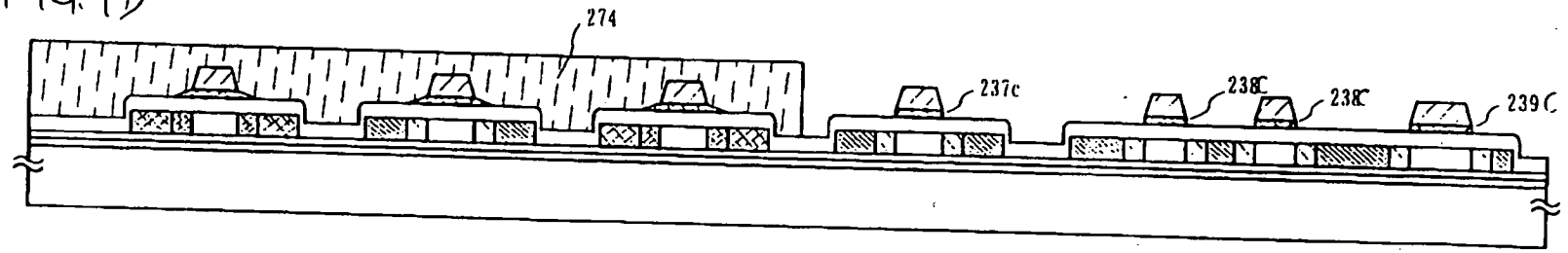
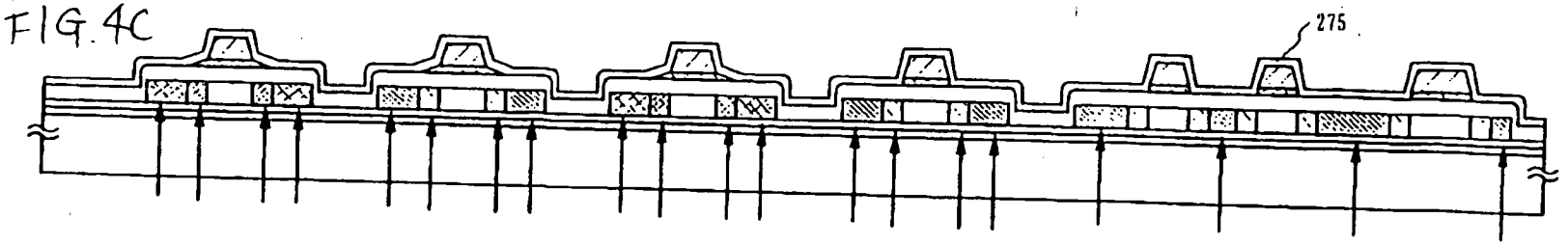


FIG. 4C



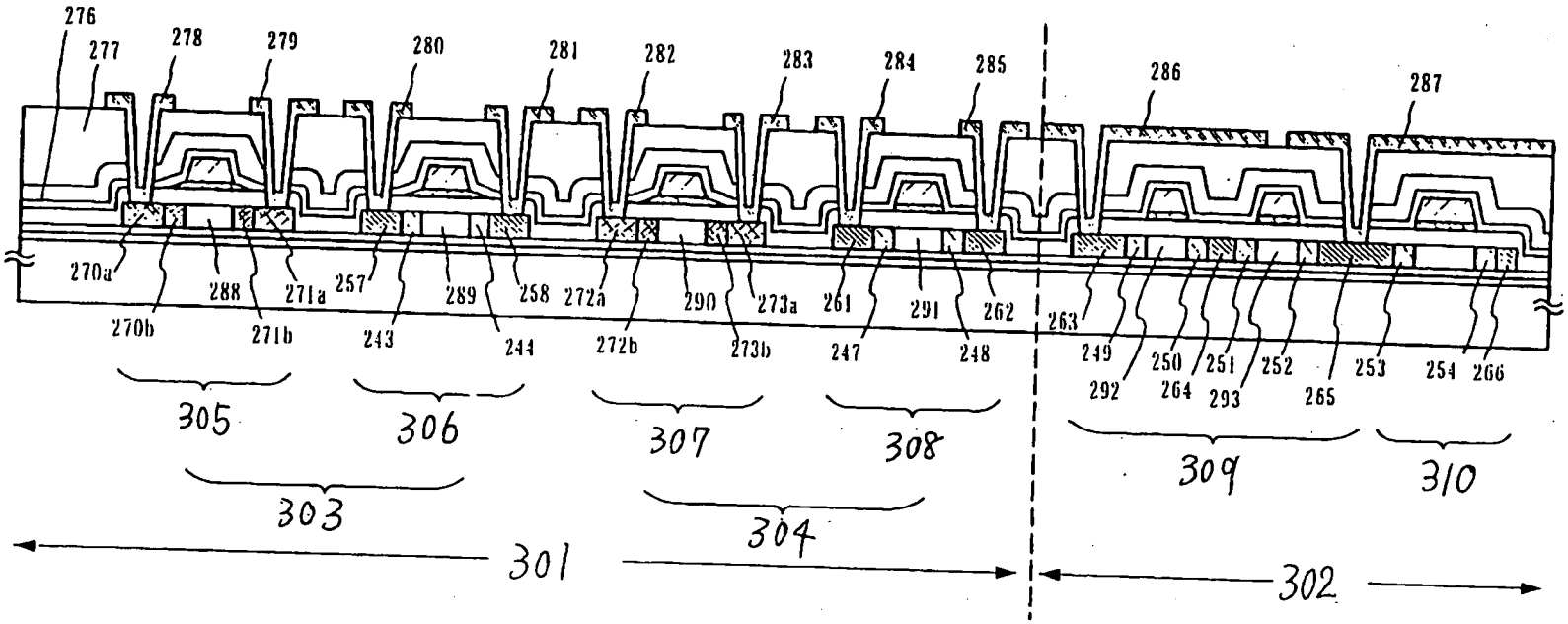


FIG.5

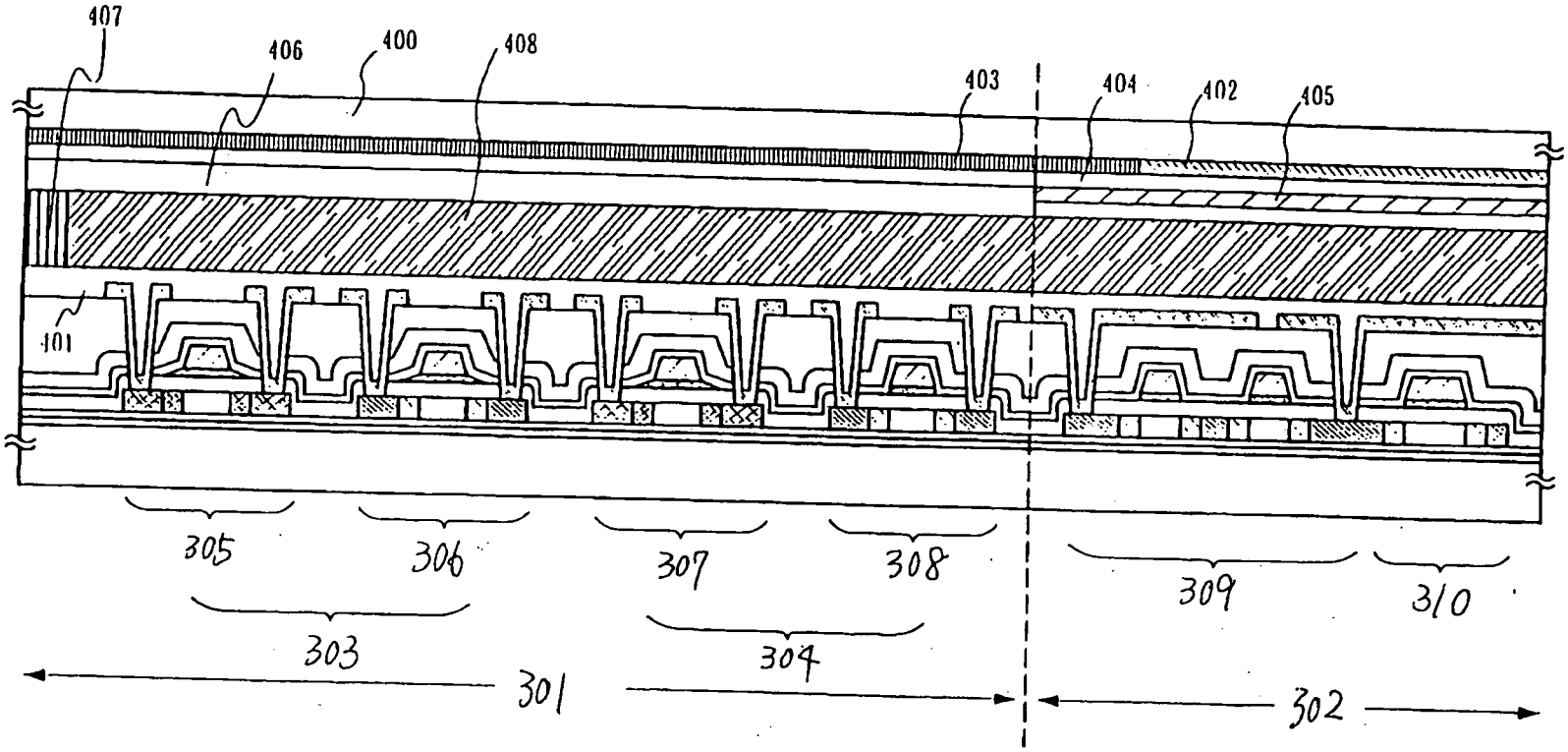


FIG. 6

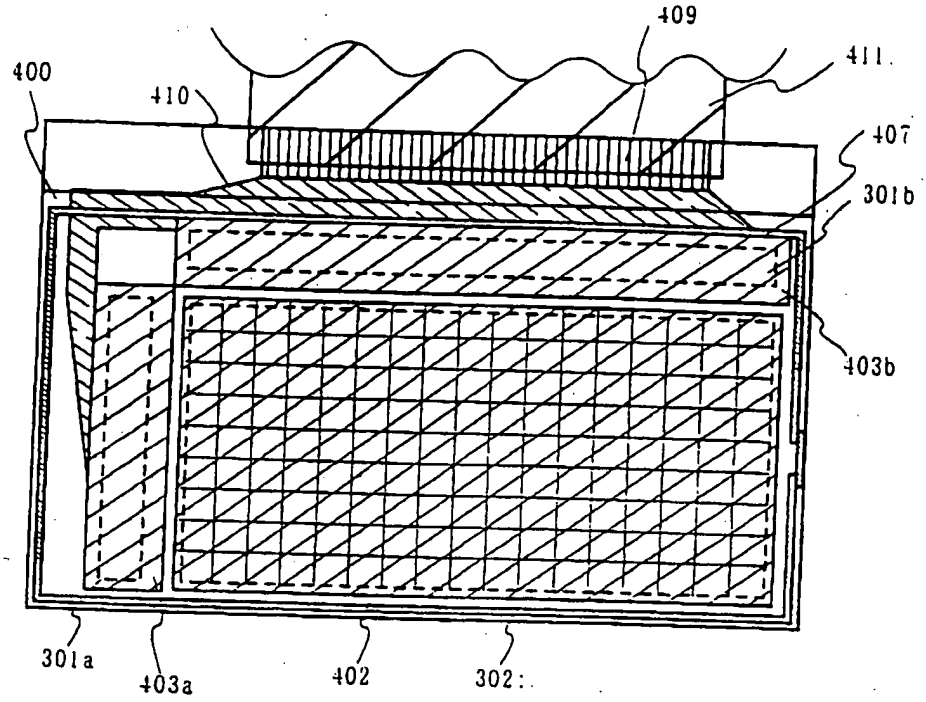


FIG. 7

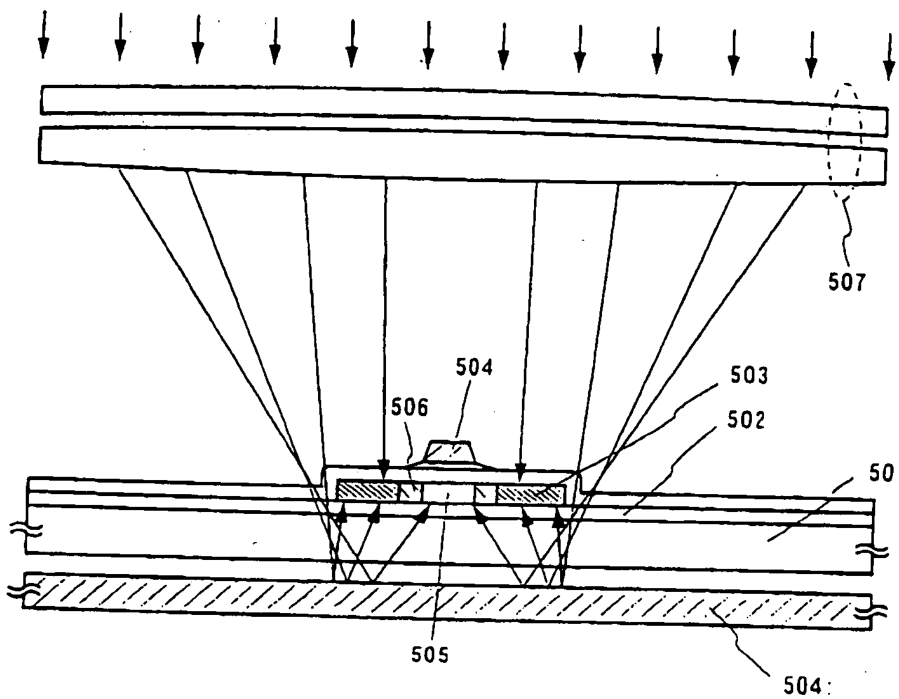


FIG. 8

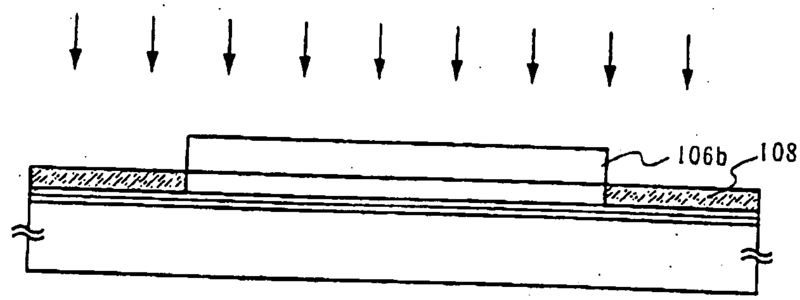


FIG.9A

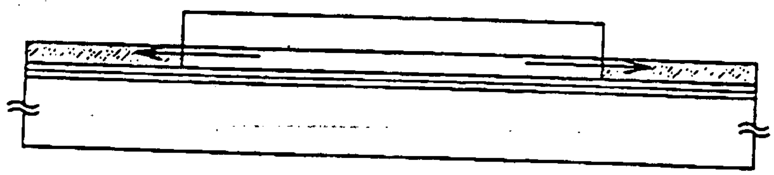


FIG.9B

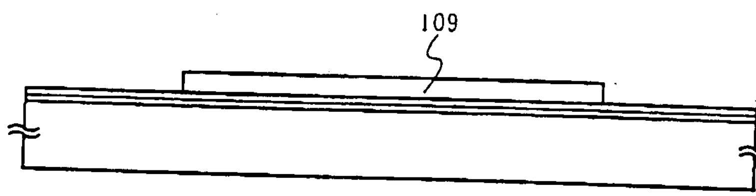


FIG.9C

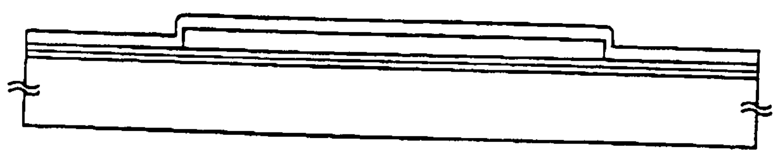


FIG.9D

FIG. 10A

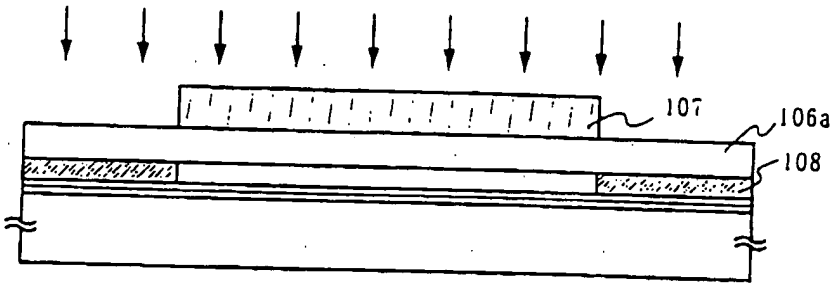


FIG. 10B

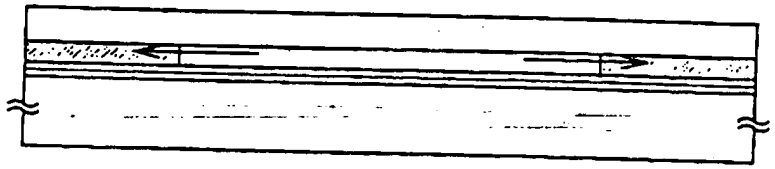


FIG. 10C

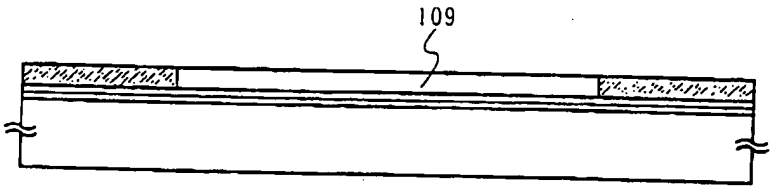


FIG. 10D

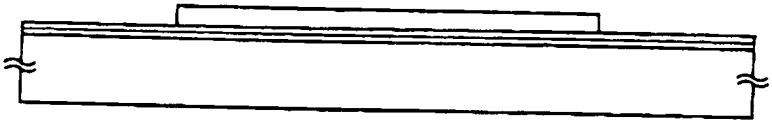


FIG. 11A

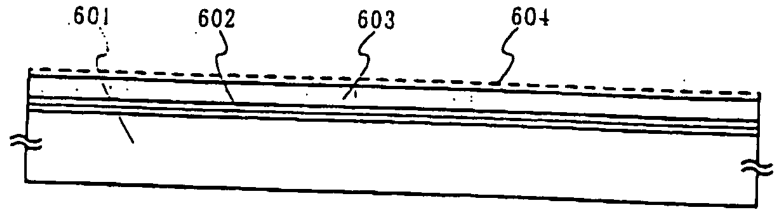


FIG. 11B

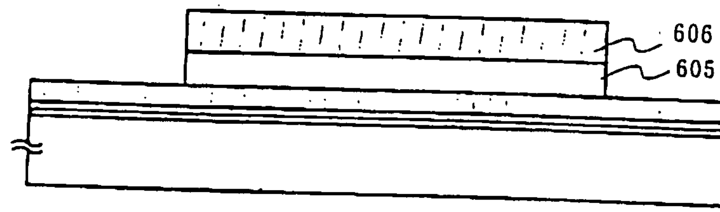


FIG. 11C

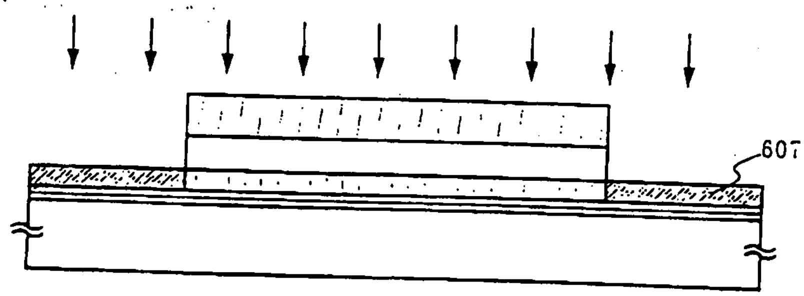


FIG. 11D

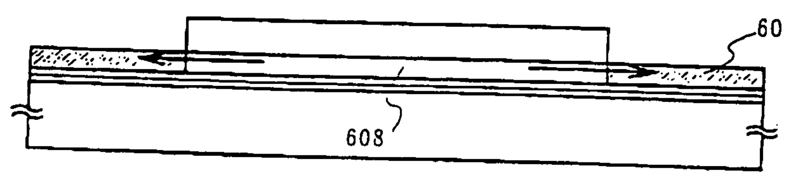


FIG. 11E

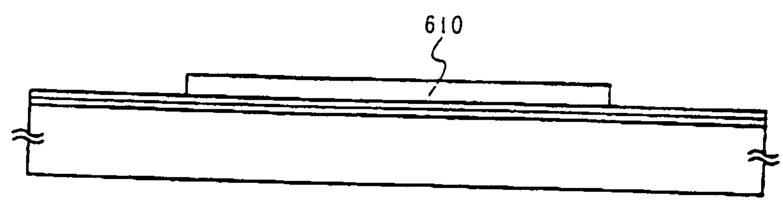


FIG. 12A

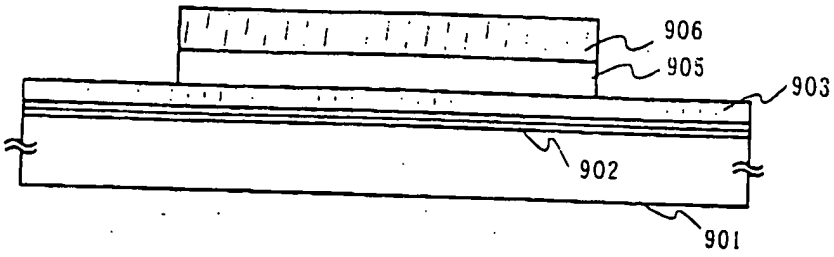


FIG. 12B

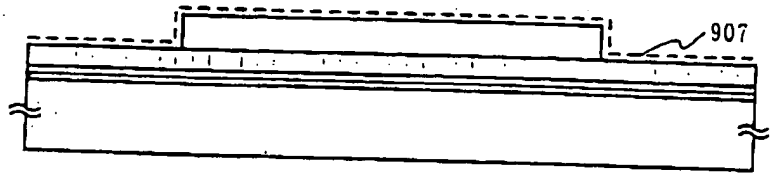


FIG. 12C

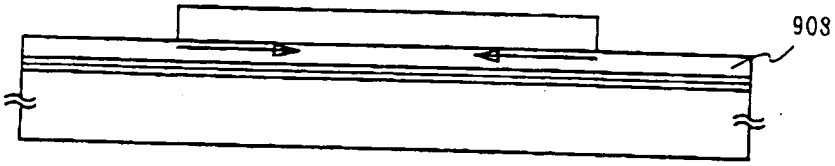


FIG. 12D

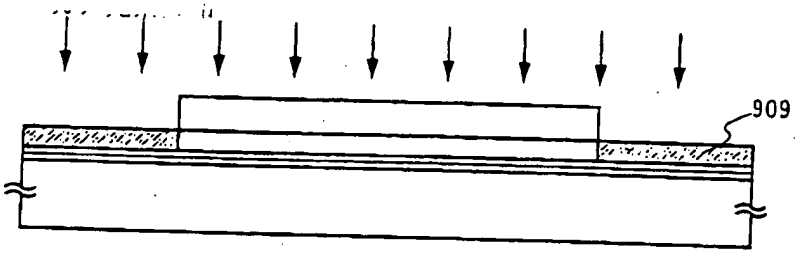


FIG. 12E

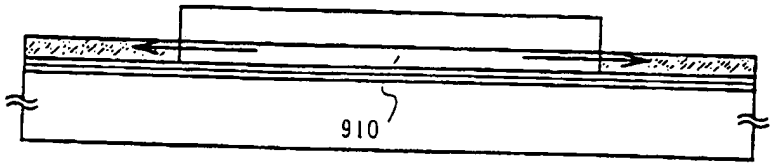


FIG. 12F

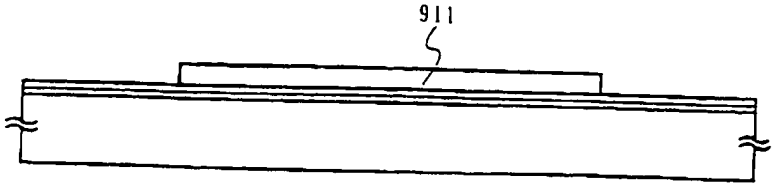


FIG. 13A

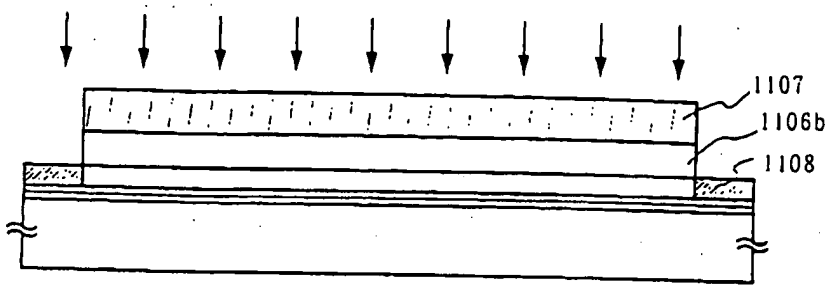


FIG. 13B

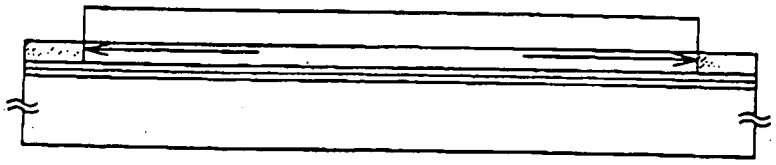


FIG. 13C

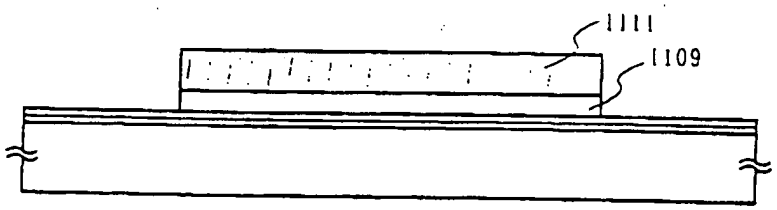


FIG. 13D

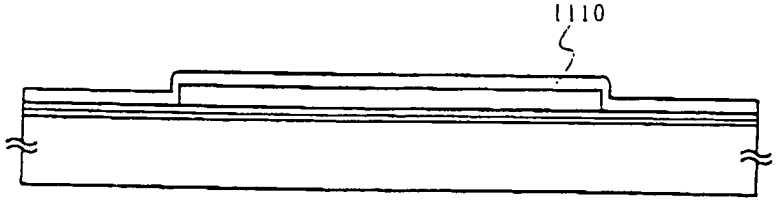


FIG. 14A

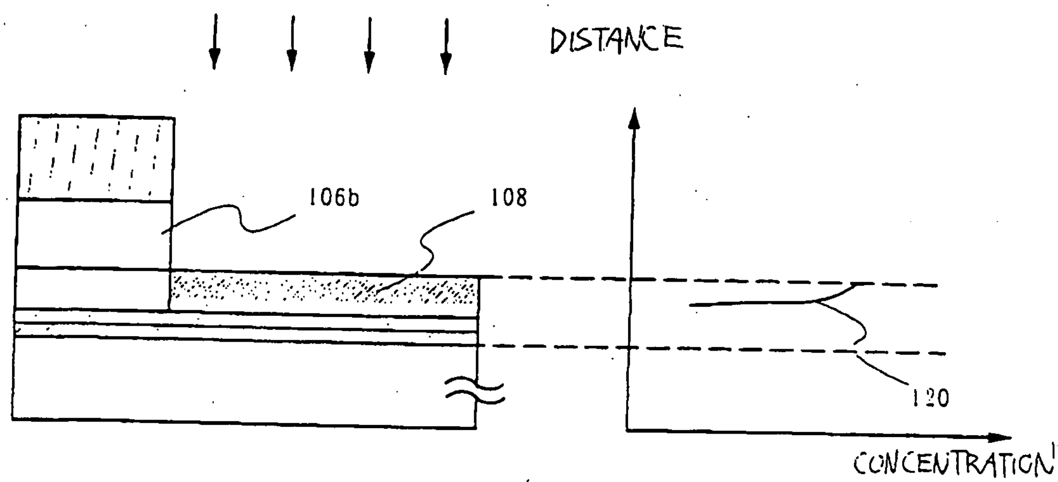


FIG. 14B

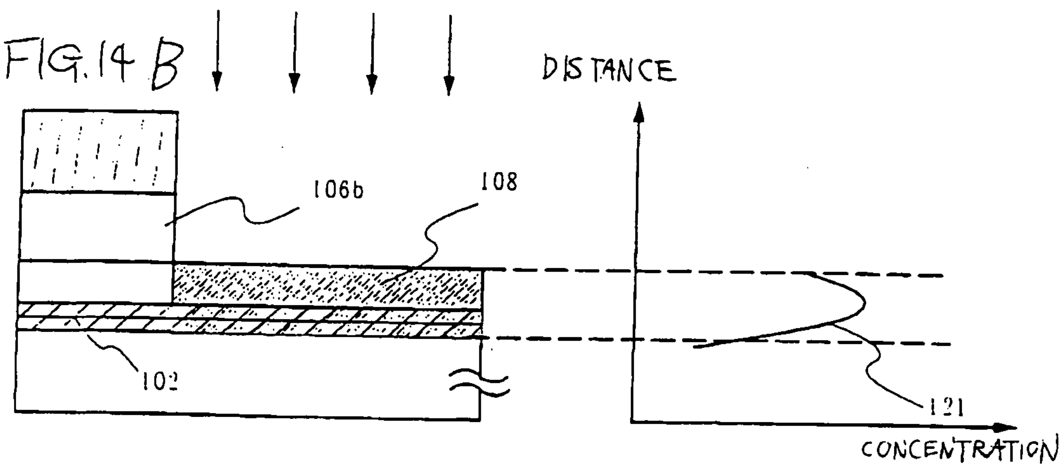
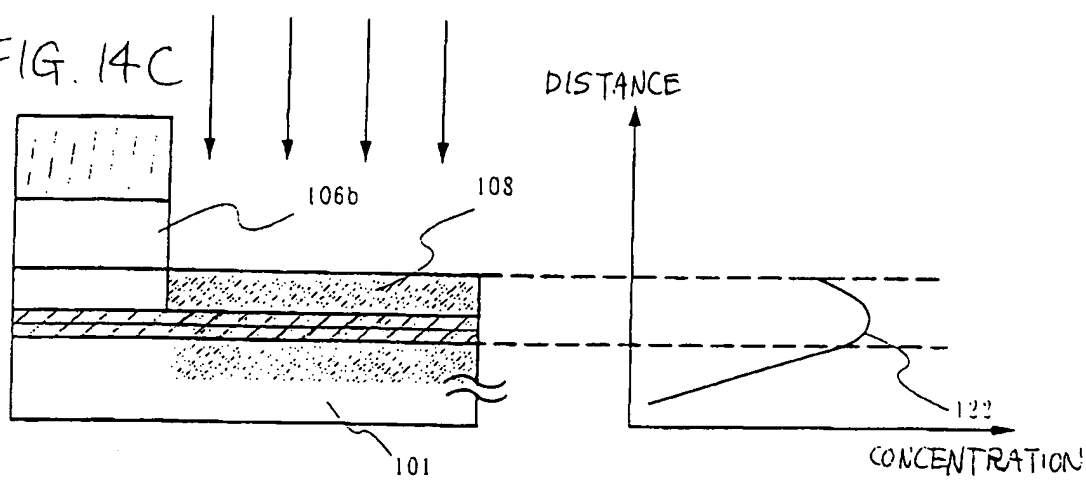


FIG. 14C



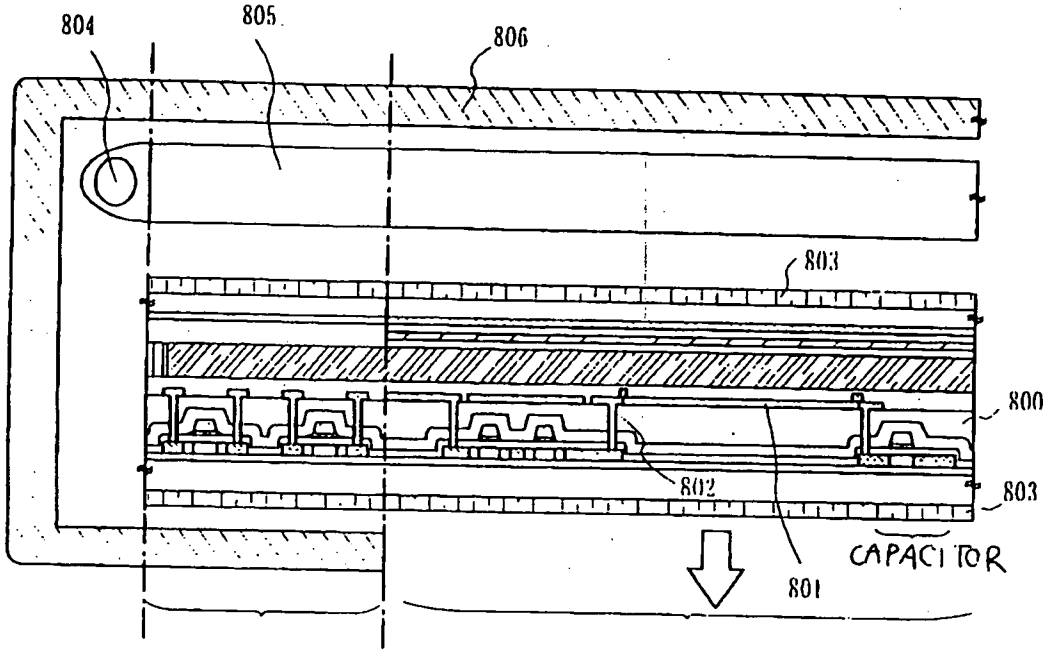


FIG. 15

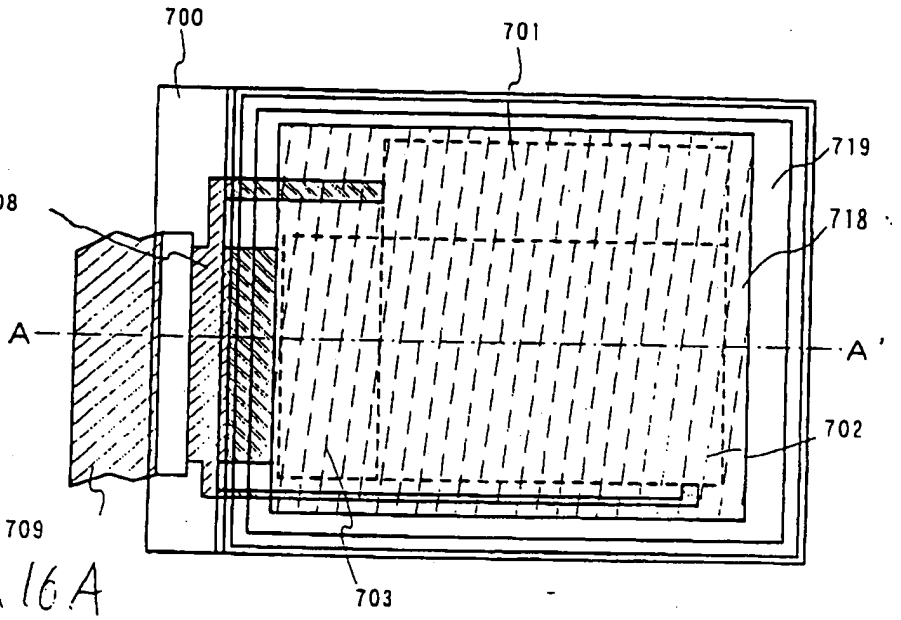


FIG. 16A

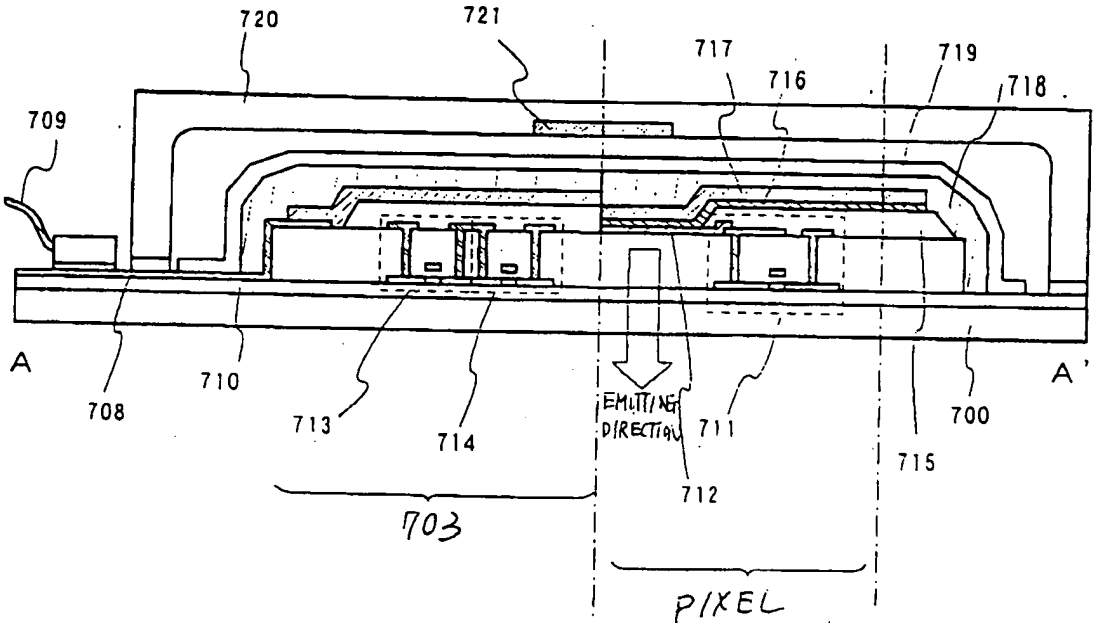


FIG. 16B

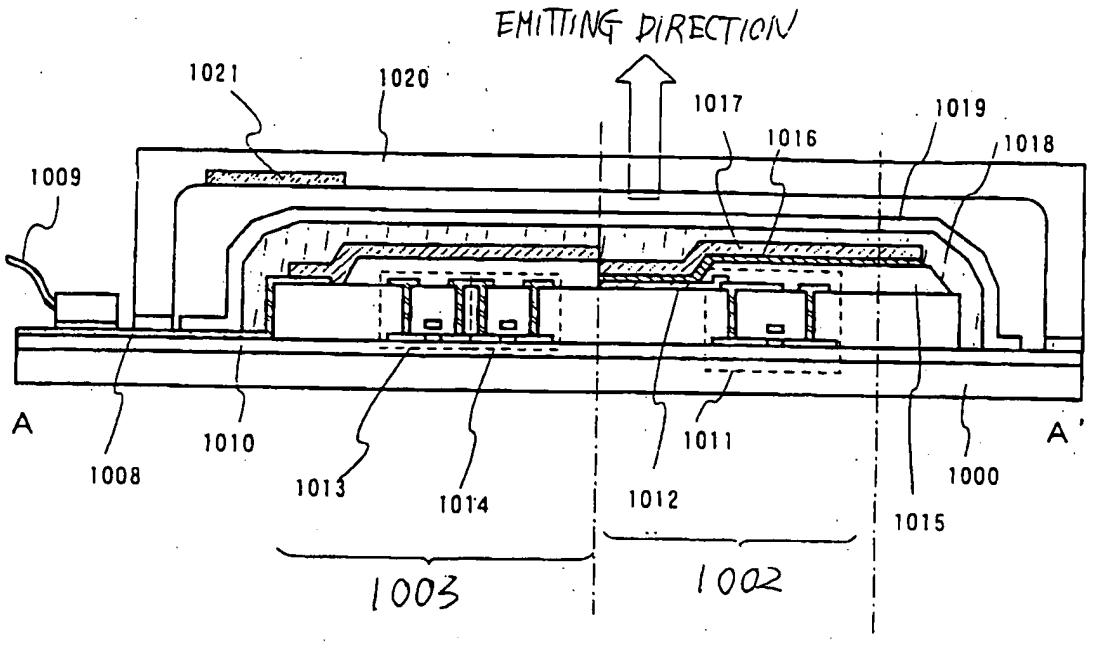


FIG. 17

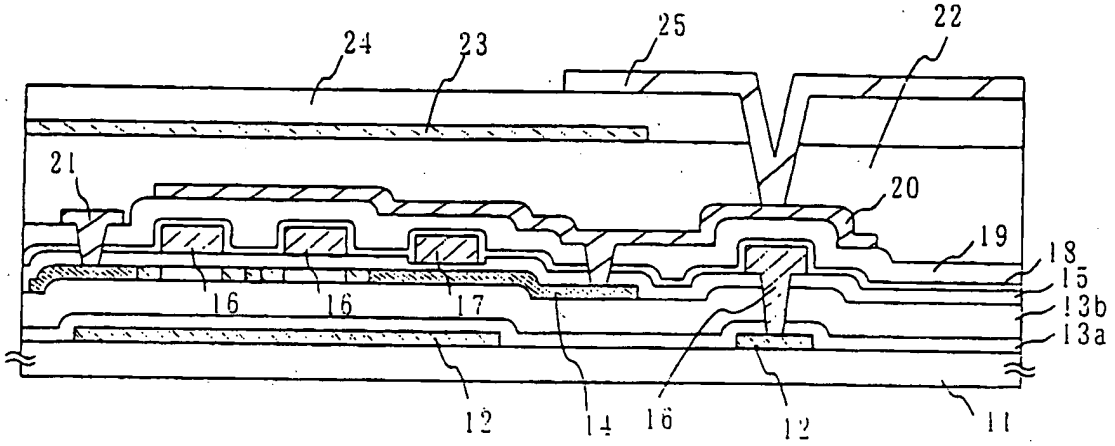


FIG. 18

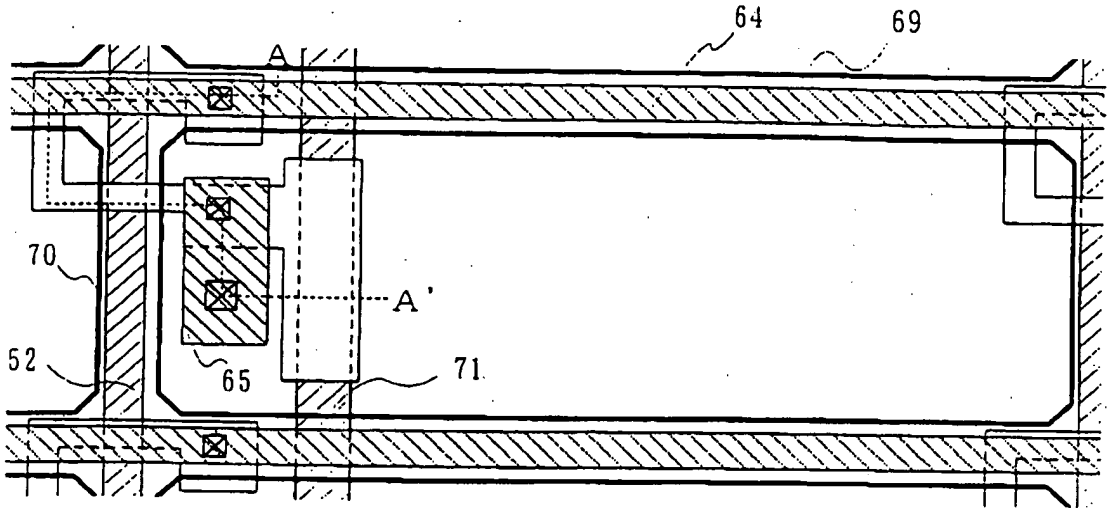


FIG. 19A

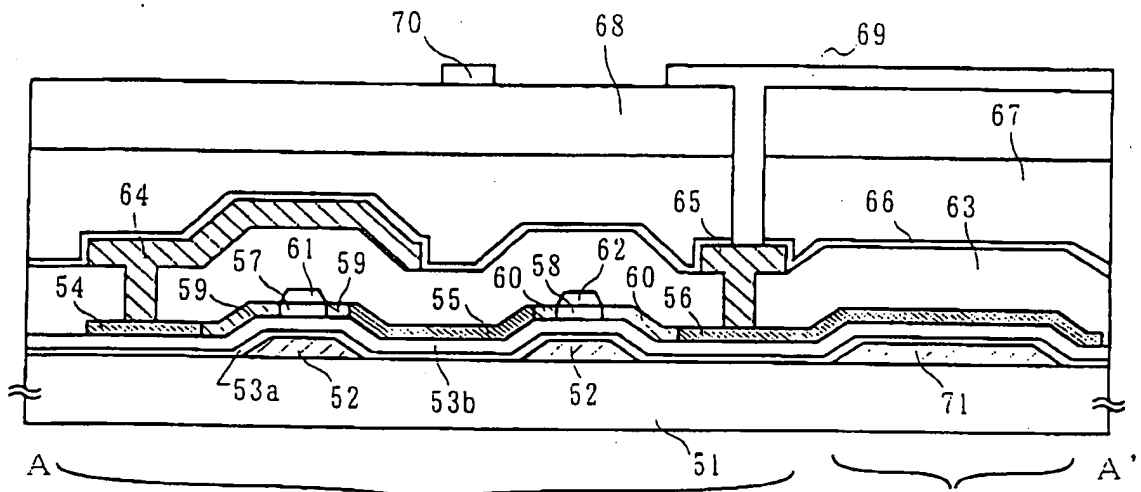


FIG. 19B PIXEL TFT PORTION CAPACITOR PORTION

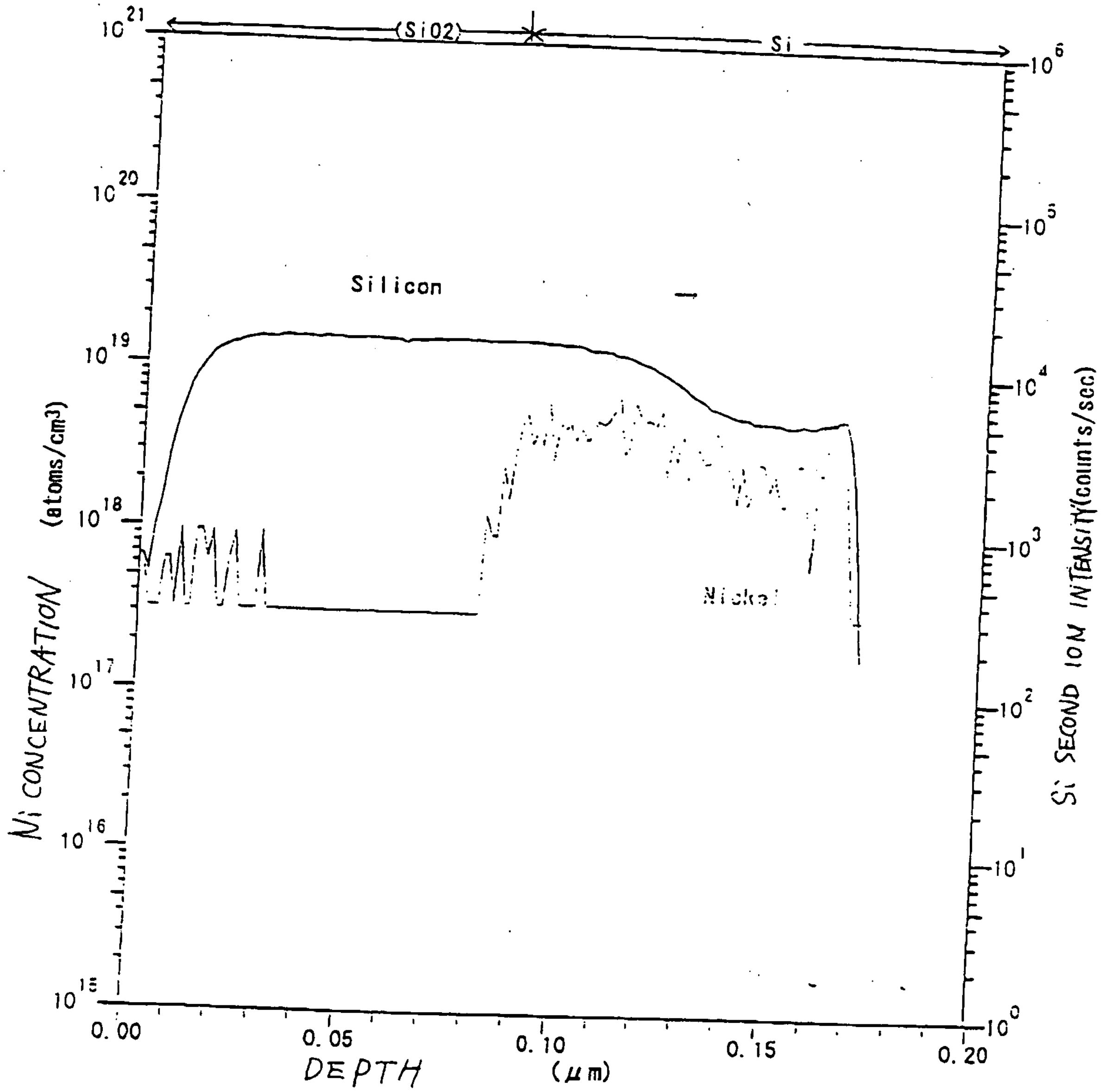


FIG. 20

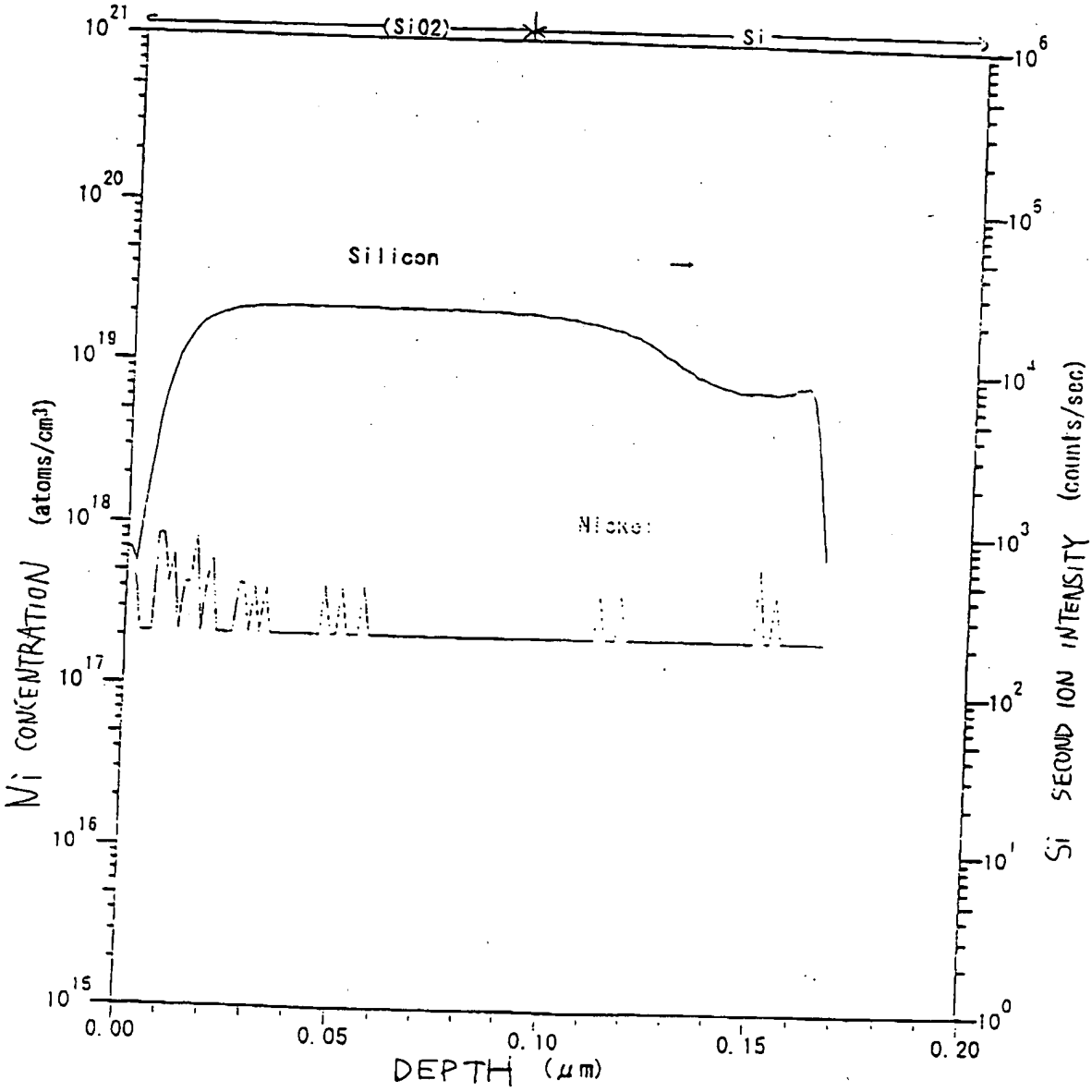

(SiO2)
Si
Silicon
Nickel
Ni CONCENTRATION (atoms/cm3)
Si SECOND ION INTENSITY (counts/sec)
DEPTH (μm)
10^21
10^20
10^19
10^18
10^17
10^16
10^15
10^6
10^5
10^4
10^3
10^2
10^1
10^0
0.00
0.05
0.10
0.15
0.20

FIG. 21

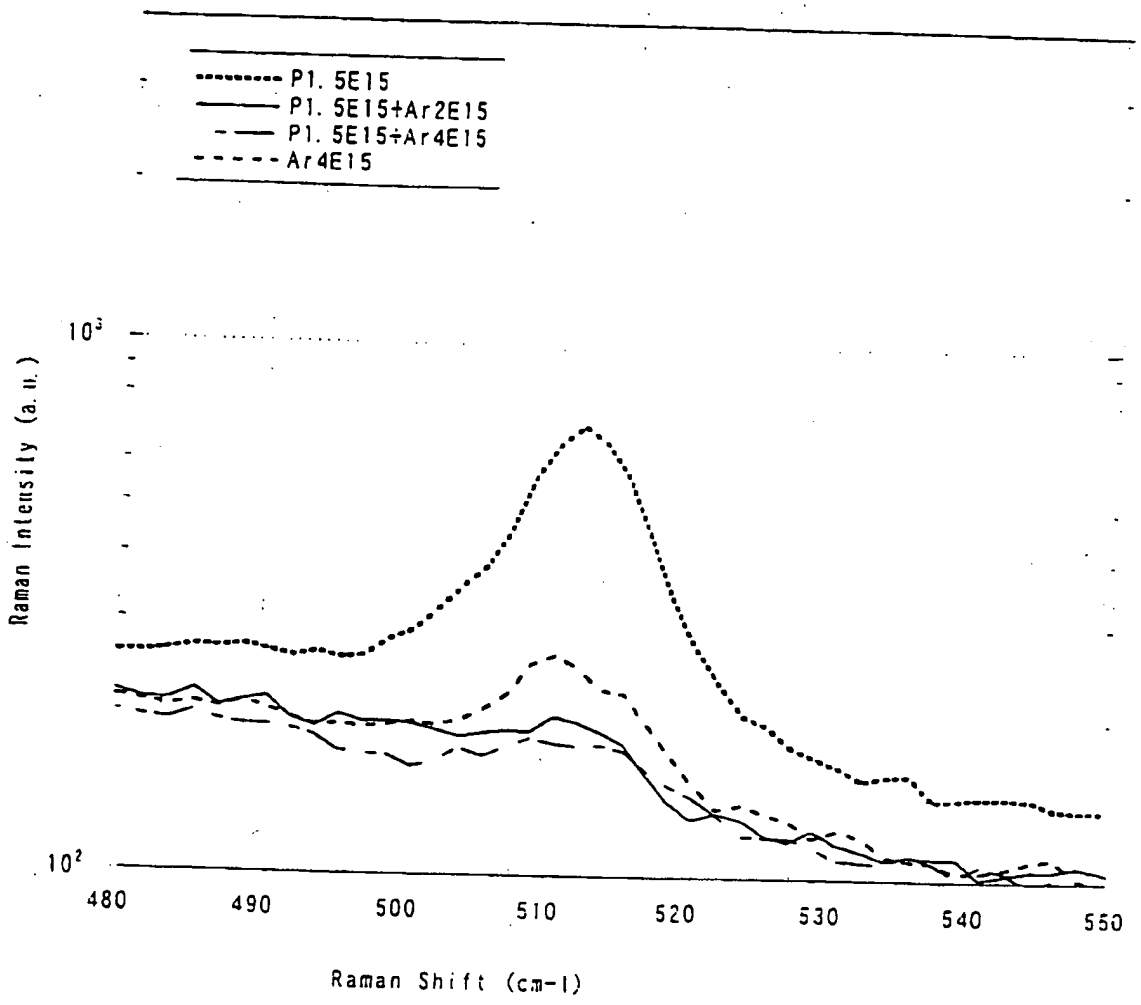

P1. 5E15
P1. 5E15+Ar2E15
P1. 5E15+Ar4E15
Ar4E15
Raman Intensity (a.u.)
10³
10²
480
490
500
510
520
530
540
550
Raman Shift (cm-1)

FIG. 22

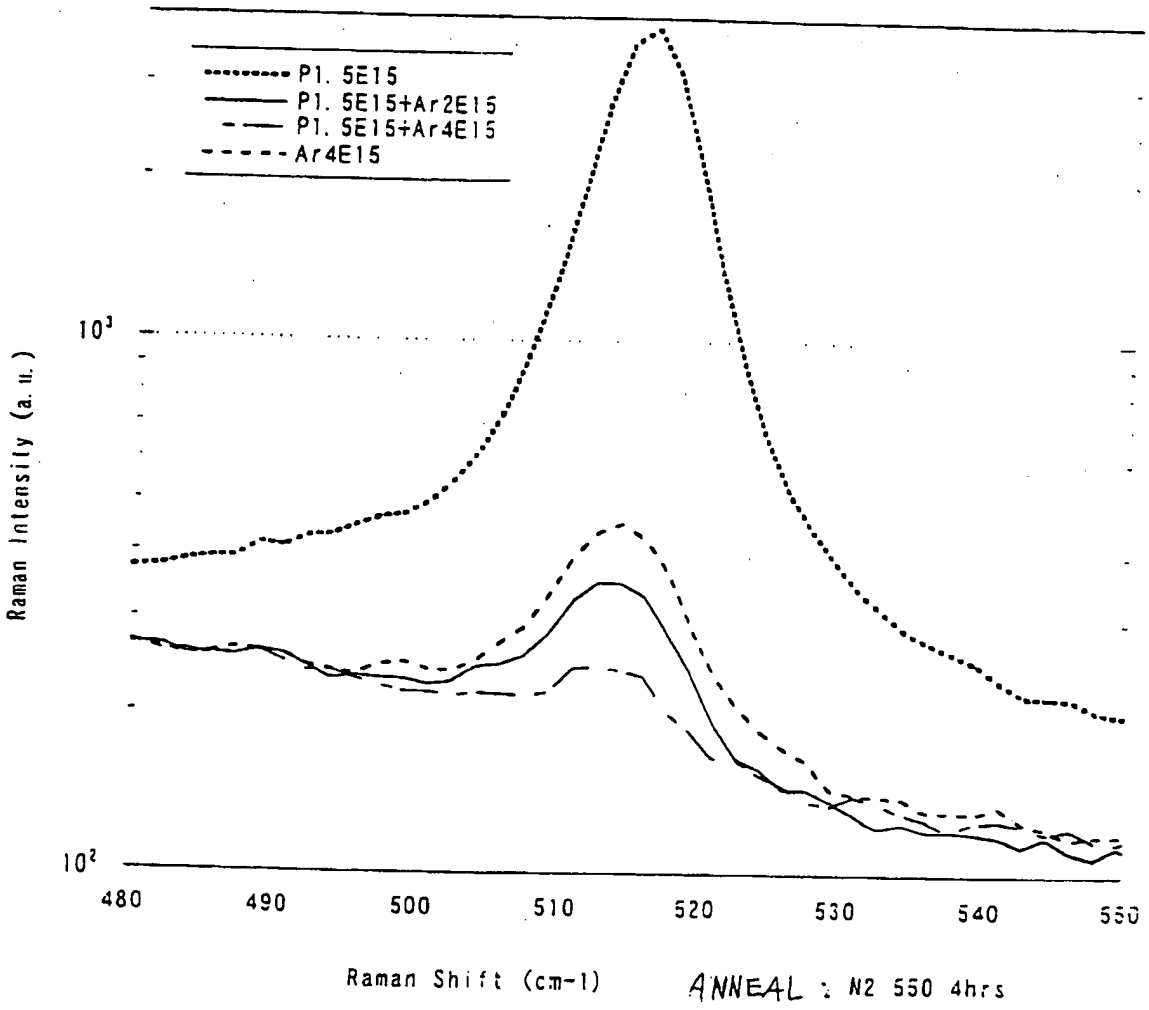


FIG. 23

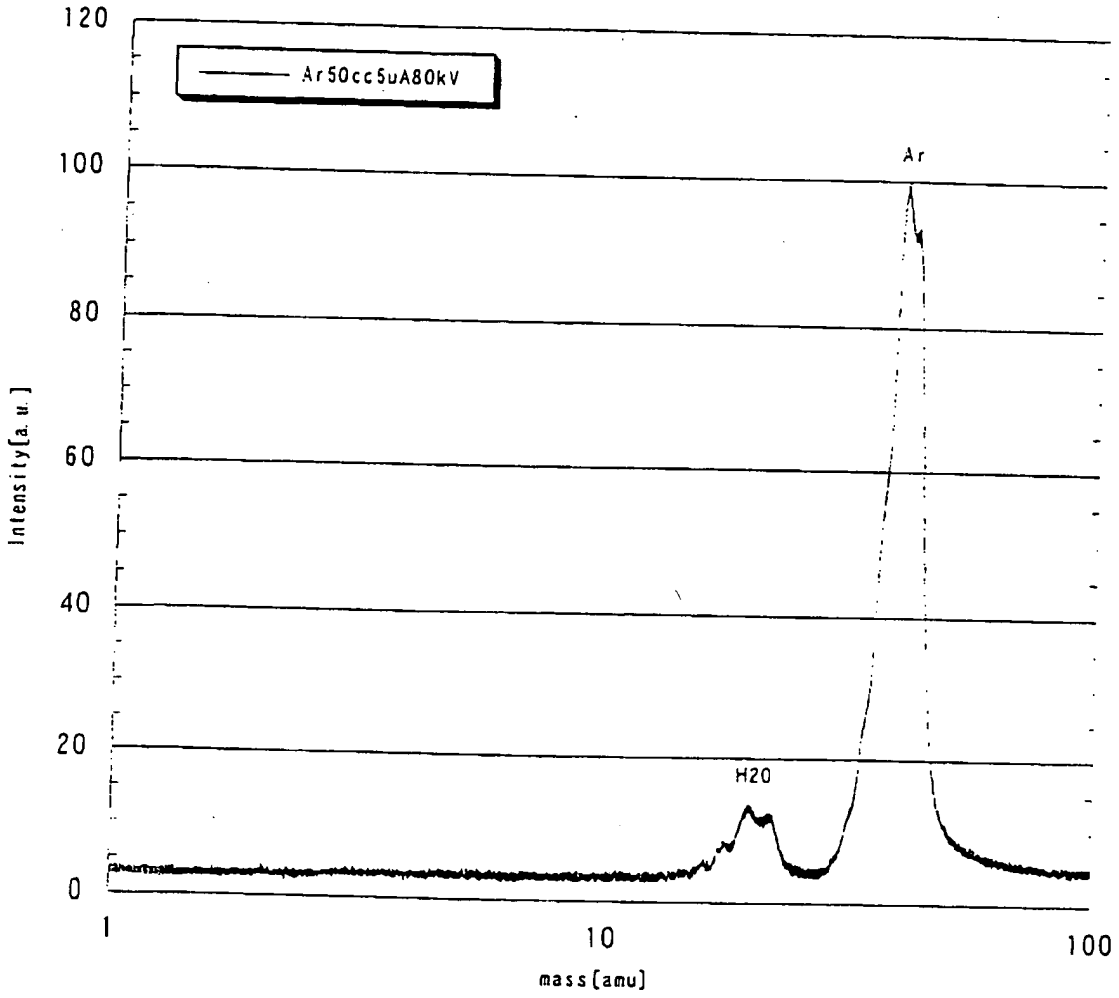
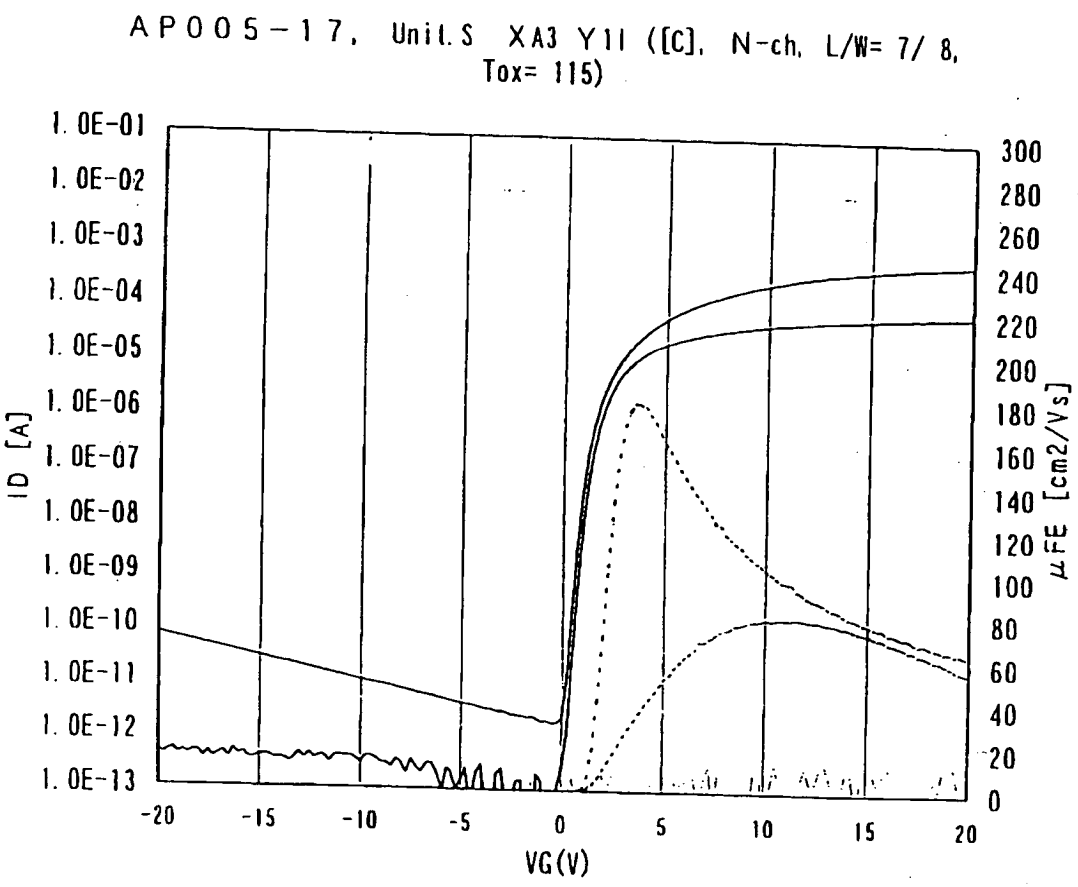

Ar50cc5uA80kV
Ar
H2O
Intensity[a.u.]
120
100
80
60
40
20
0
1
10
100
mass[amu]

FIG. 24



Lot No. :	APOO5_CN	
FILE NAME	CHNSA311	
Comment	SemiAuto	
PARAMETER OF MEASUREMENT		
VD start		1
VD step		13
VD step number		2
PARAMETER OF CALCULATION		
CHANNEL TYPE		N
L [μm]		7.0
W [μm]		8.0
DIELECTRIC CONSTANT		4.1
THICKNESS OF OXIDE		115
RESULT OF CALCULATION		
Ion_2 [A]	2.34E-04	
Ioff_2 [A]	3.70E-12	
Shift_1[V]	0.231	
Vth [V]	1.222	
S-value [V/dec]	0.175	
μFE(max) [cm2/Vs]	179.9	

FIG. 25

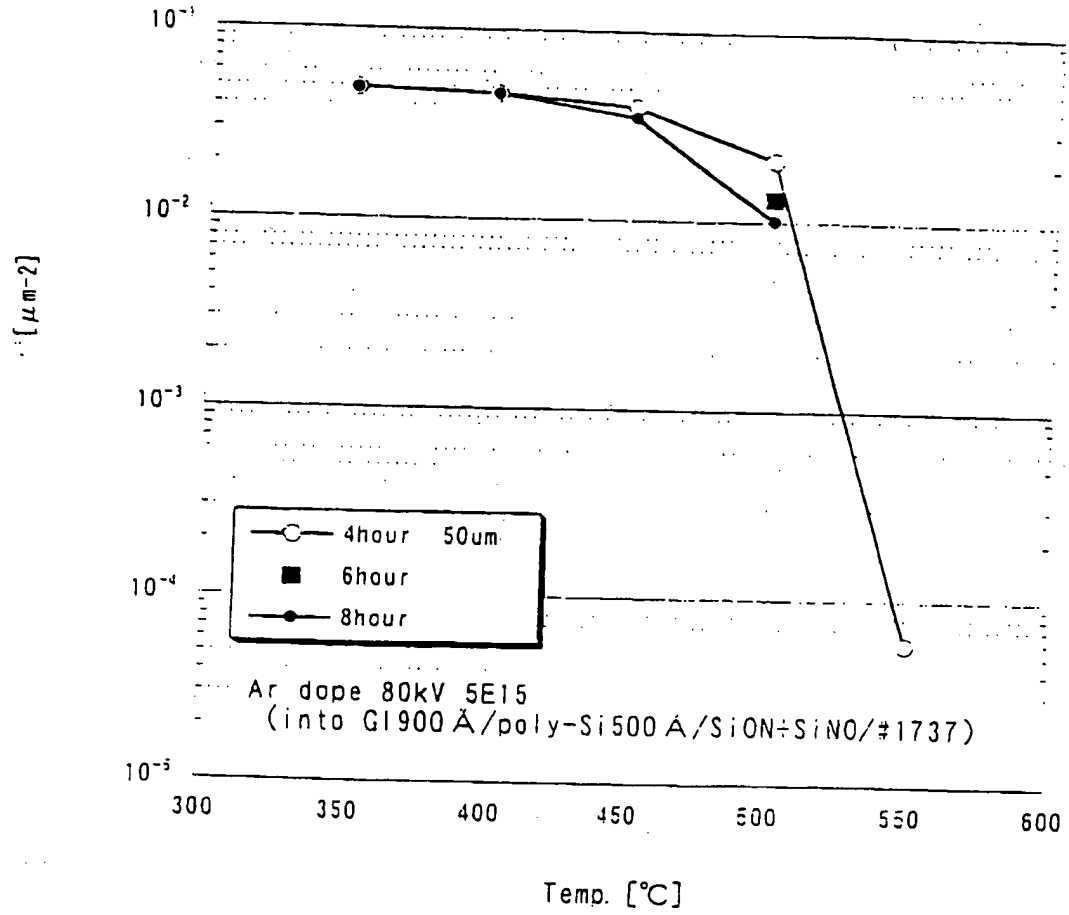

10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
[μm^{-2}]
4hour 50um
6hour
8hour
Ar dope 80kV 5E15
(into GI900Å/poly-Si500Å/SiON÷SiNO/#1737)
300
350
400
450
500
550
600
Temp. [°C]

FIG. 26

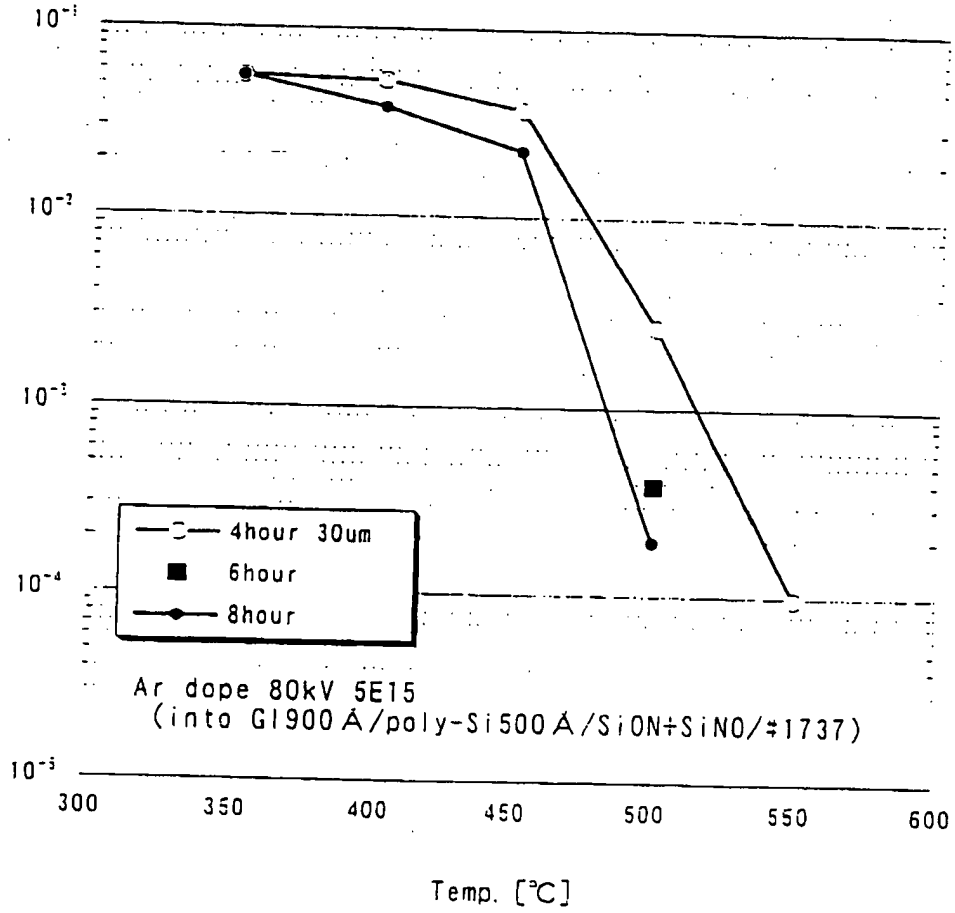

DENSITY OF ETCH PITS [μm-2]
10-1
10-2
10-3
10-4
10-5
4hour 30um
6hour
8hour
Ar dope 80kV 5E15
(into GI900Å/poly-Si500Å/SiON+SiNO/#1737)
300
350
400
450
500
550
600
Temp. [°C]

FIG. 27

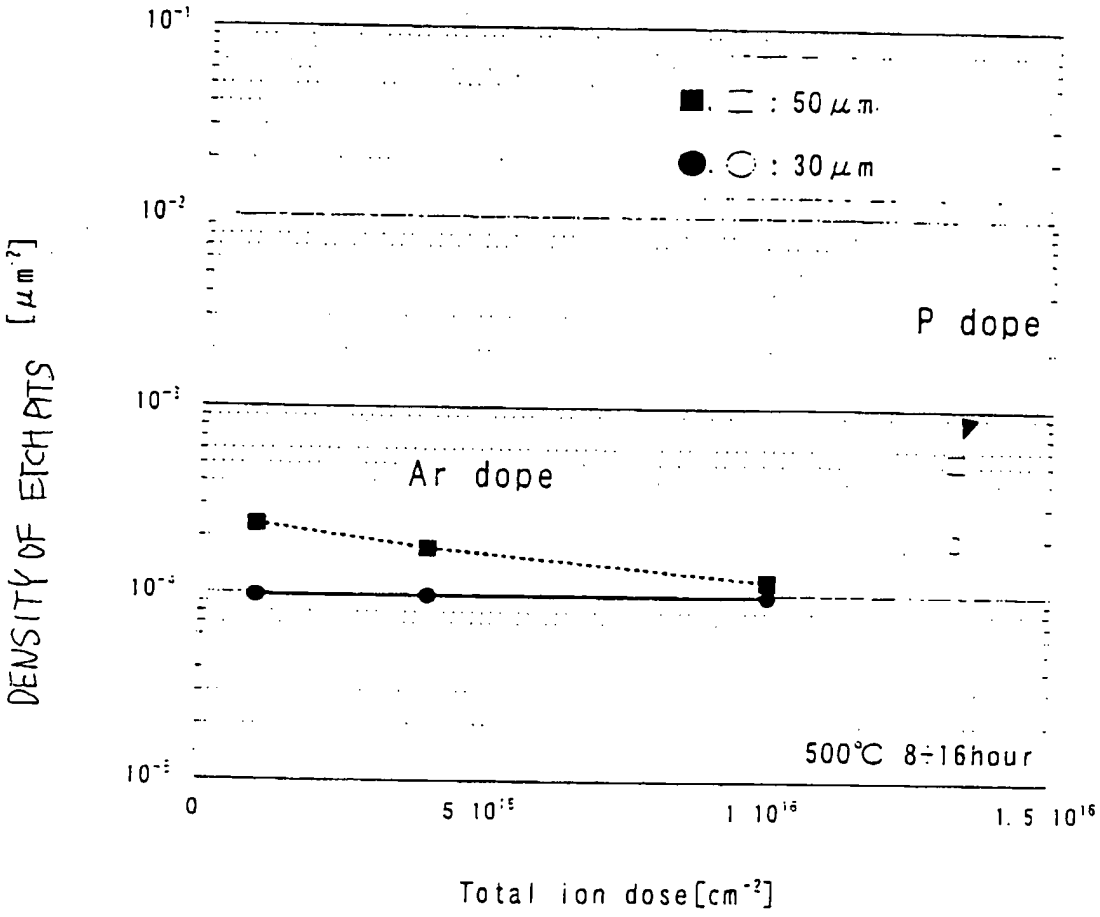


FIG. 28

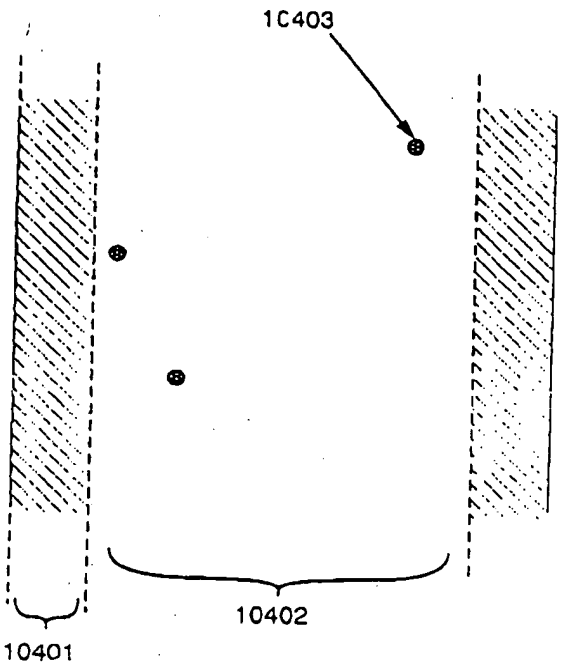


FIG. 29

FIG. 30A

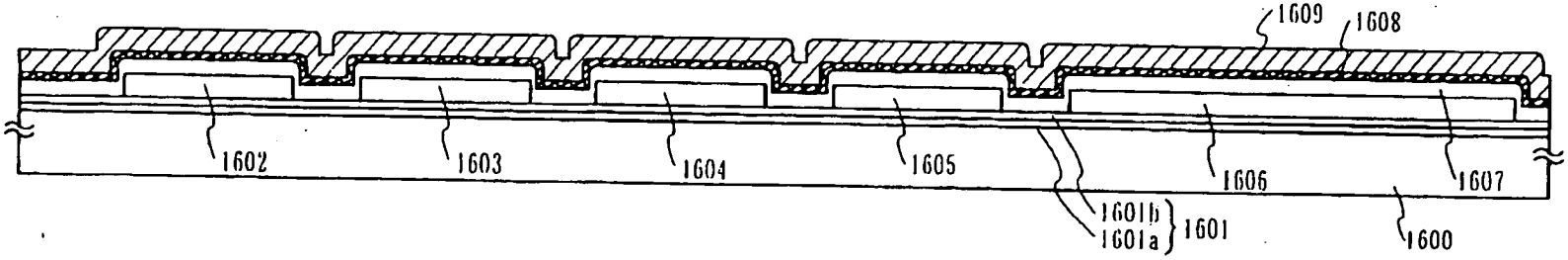


FIG. 30B

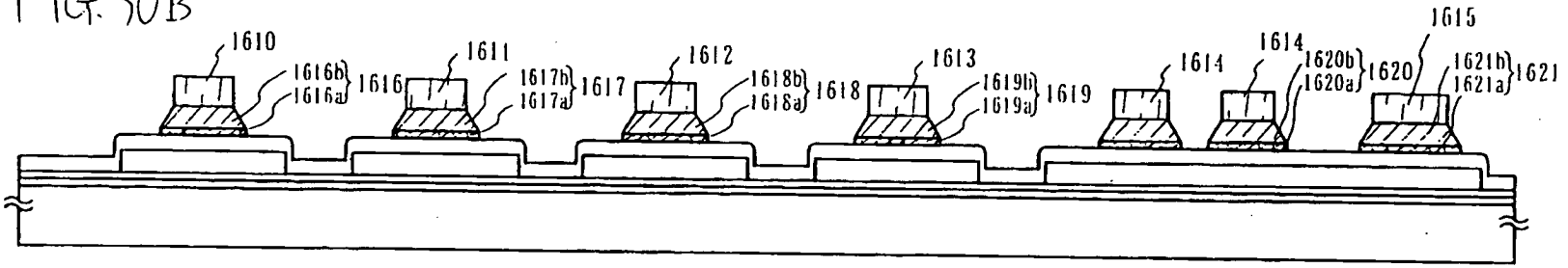


FIG. 30C

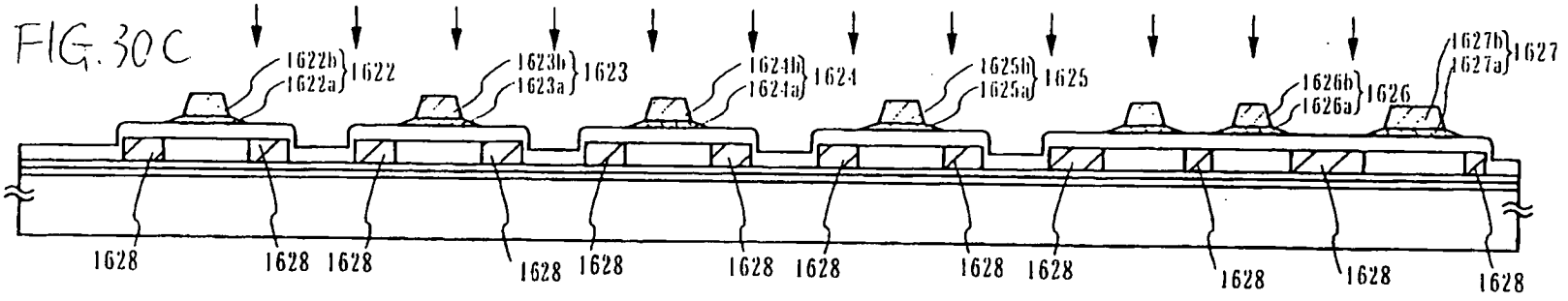


FIG. 31A

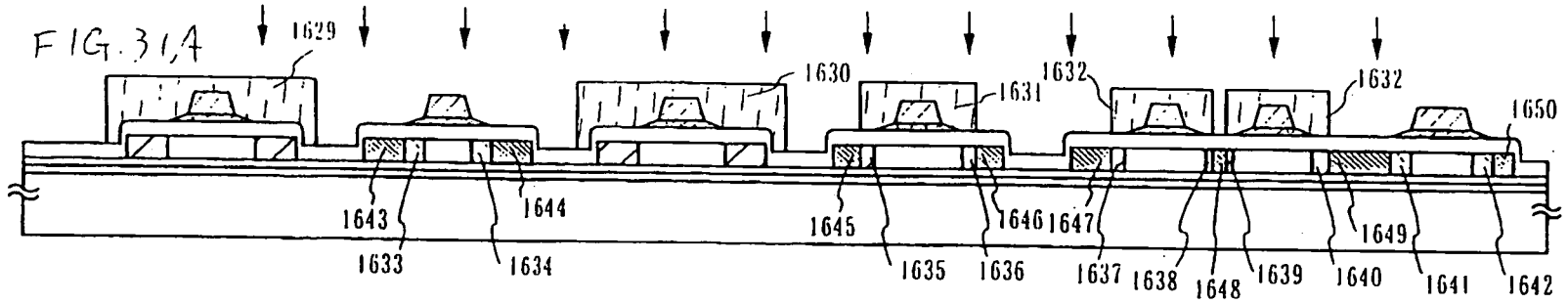


FIG. 31B

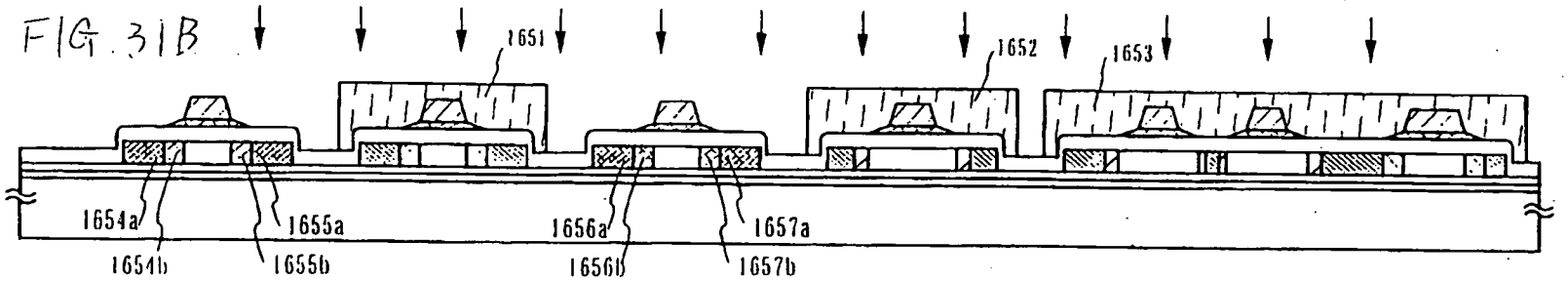
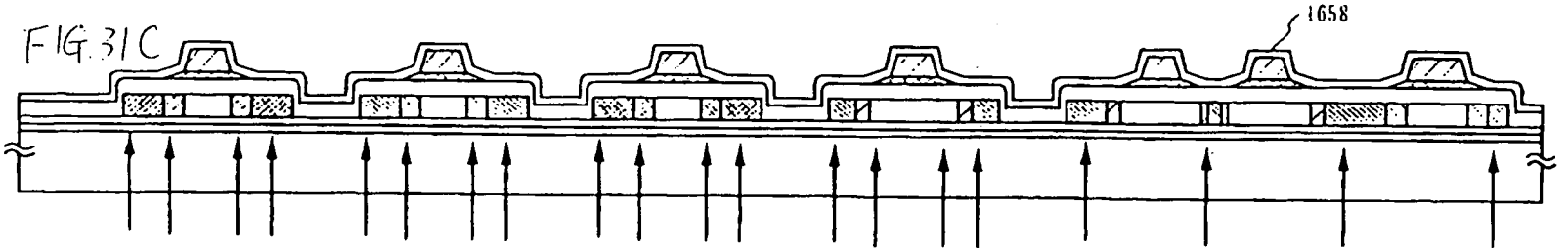


FIG. 31C



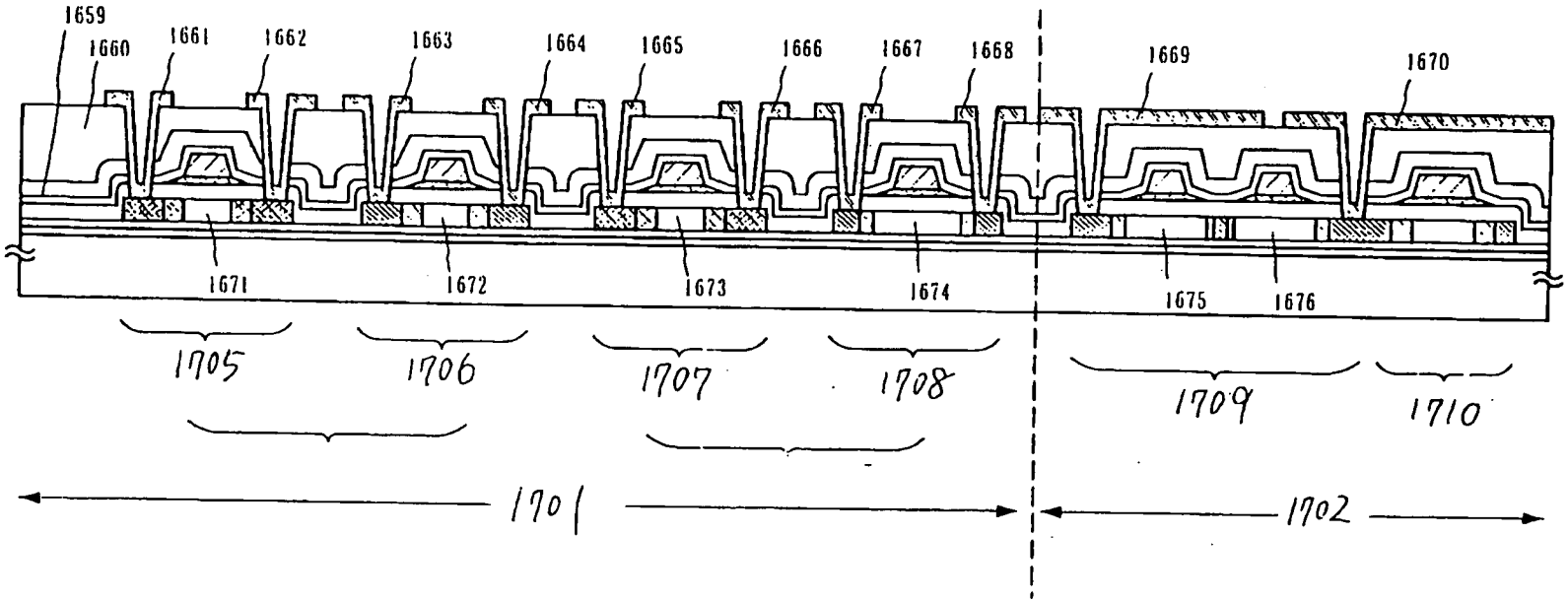

1659
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FIG. 32

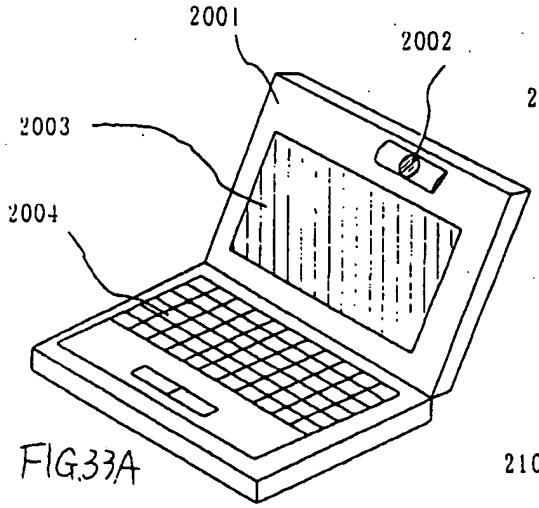


FIG.33A

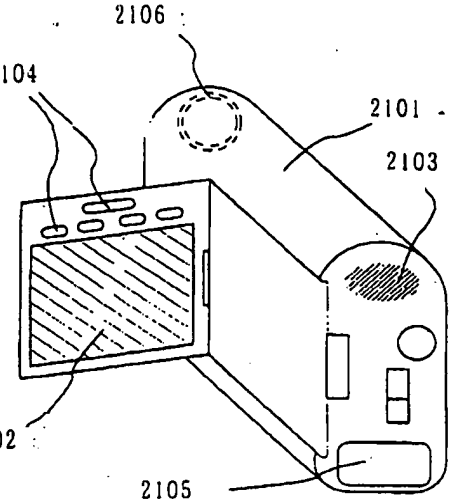


FIG.33B

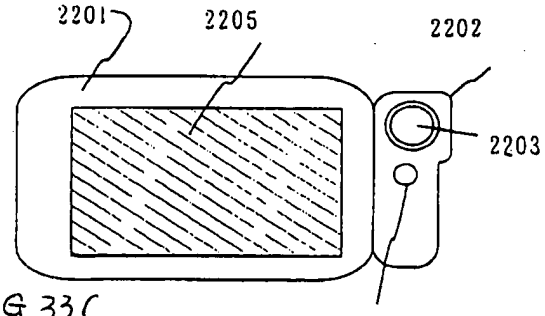


FIG.33C

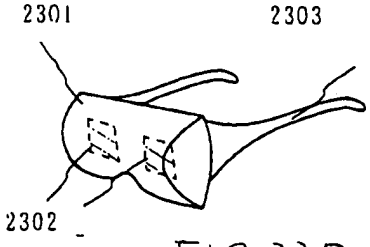


FIG.33D

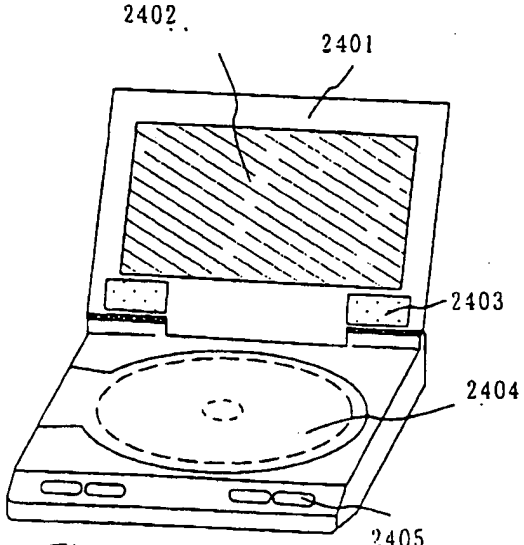


FIG.33E

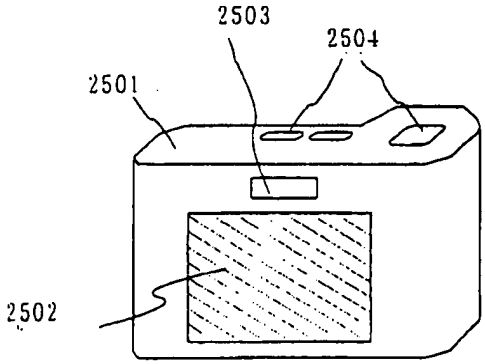


FIG.33F

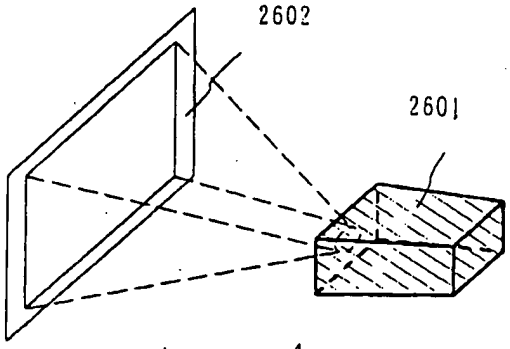


FIG. 34A

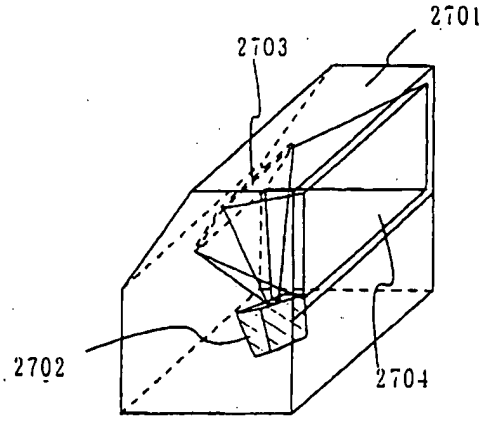


FIG. 34B

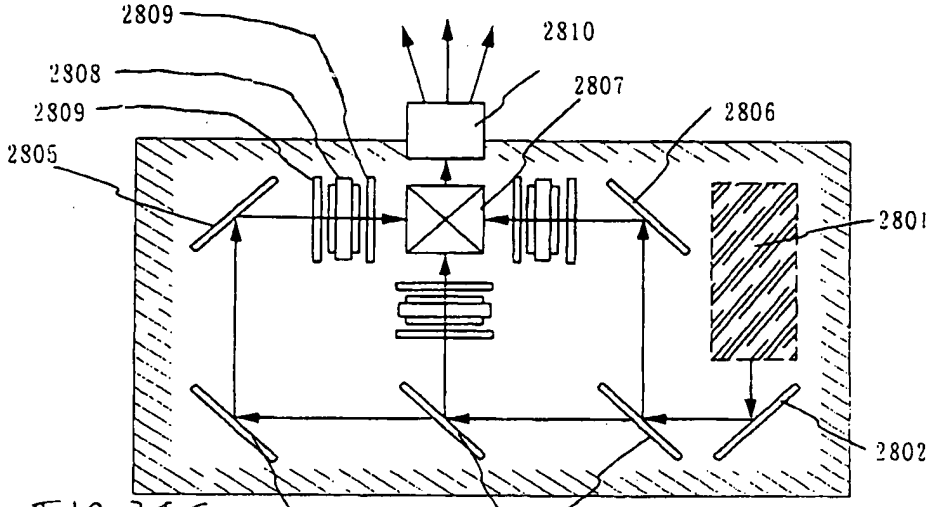


FIG. 34C

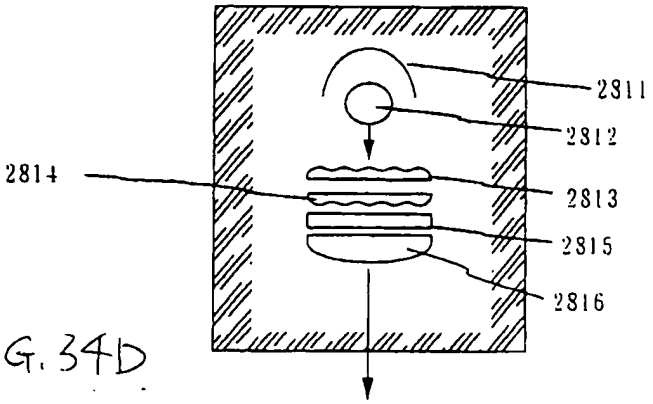


FIG. 34D

FIG. 35A

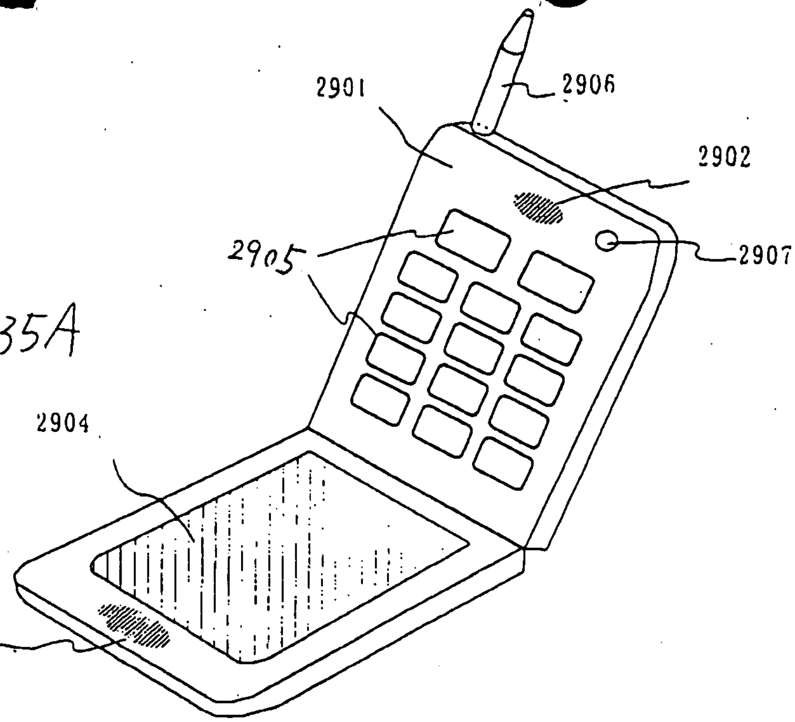


FIG. 35B

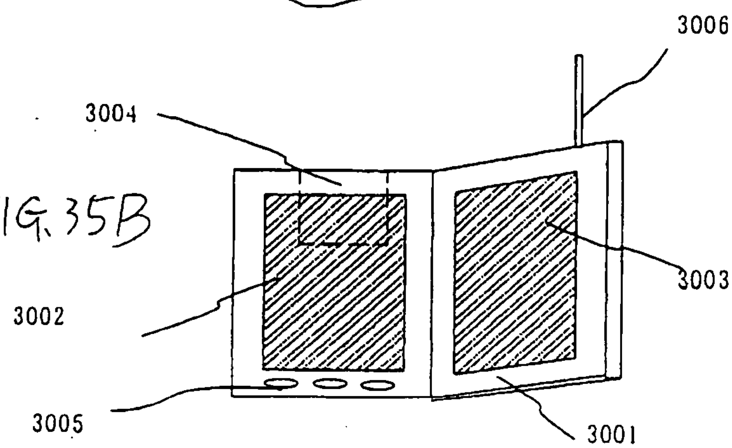
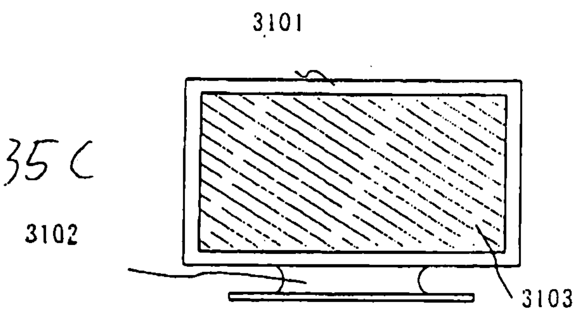


FIG. 35C



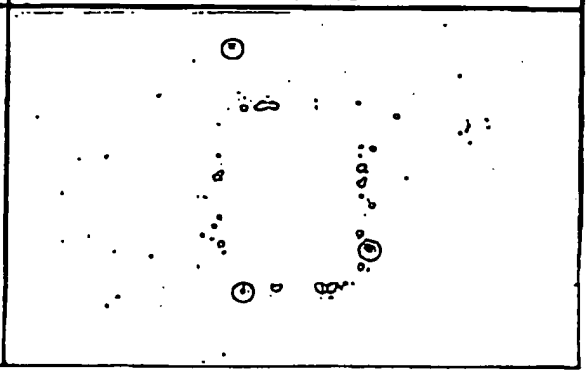
	GETTERING CONDITION
MAGNIFICATION	550°C4hrs
× 200	

FIG. 36